

Panaji, 4th December, 1984 (Agrahayana 13, 1906)

SERIES II No. 35

OFFICIAL GAZETTE

GOVERNMENT OF GOA, DAMAN AND DIU

EXTRAORDINARY

No. 2

GOVERNMENT OF GOA, DAMAN AND DIU

Industries and Labour Department

Order

No. 28/50/83-ILD

The following Award given by the Arbitrator appointed under Notification No. 28/50/83-ILD dated 21st January 1984 is hereby published as required under the provisions of Section 17 of the Industrial Disputes Act, 1947 (Central Act XIV of 1947).

By order and in the name of the Administrator of Goa, Daman and Diu.

Subhash V. Elekar, Under Secretary (Industries and Labour).

Panaji, 4th December 1984.

AWARD

In Arbitration Proceedings under Section 10-A of the Industrial Disputes Act, 1947

BETWEEN

1. A. M. Gaikwad,
Sr. Personnel Officer,
M/s. V. S. Dempo & Co., Pvt. Ltd.,
Panaji, Goa.
2. S. S. Kantak,
Executive Director,
M/s. Fomento Barges Pvt. Ltd.,
Margao, Goa.
3. R. N. Shetty,
Manager, Export Deptt.
M/s. Chowgule & Co. Pvt. Ltd.,
Mormugao Harbour, Goa.
4. A. V. Salgaonkar,
Manager; Personnel,
M/s. Sesa Goa Pvt. Ltd.,
Altinho, Panaji, Goa.
5. Capt. K. S. Varadkar,
Manager, Shipping
M/s. Salgaonkar Mining Industries,
Vasco-da-Gama, Goa.

6. M. S. Manerkar,
Acting Personnel Officer,
M/s. Timblo Pvt. Ltd.,
Margao, Goa.
7. A. G. Ajuaonkar,
Asstt. Labour Officer,
M/s. Pandurang Timblo Industries,
Margao, Goa.
8. V. S. Raikar,
Director,
M/s. D. B. Bandodkar & Sons,
Panaji, Goa.
9. K. H. Ghadiali,
Engineering Superintendent,
M/s. R. N. S. Bandekar & Sons (S) Pvt. Ltd.,
Vasco-da-Gama, Goa.
10. M/s. G. N. Agrawal,
Margao, Goa.
11. M. M. Shaparia,
Executive,
M/s. Shaparia Dock & Steel Co.,
Vasco-da-Gama, Goa.
12. Jairam Dialani,
Manager,
M/s. Tolani Ltd.,
Vasco-da-Gama, Goa.
13. Y. E. Shroff,
Manager,
M/s. Bombay Marine Engineering
Works Ltd., Three Jaff House,
Behind Municipal Garden,
Vasco-da-Gama, Goa.
14. Vishnu Bhai M. Amin,
Partner,
M/s. Vipul Shipping Eng. Works,
15. S. S. Dicholkar,
Office Superintendent,
M/s. G. R. Engineering Works Ltd.,
Monteiro Bldg.,
Vasco-da-Gama, Goa.
16. H. Ratnappan,
Accountant,
M/s. Eureka Shipping Co.,
Salcar Bldg.,
Vasco-da-Gama, Goa.
17. Cesar Costa,
Partner,
M/s. Costa River Transport,
Altinho, Mapusa, Goa.

18. Prakash B. Sardesai,
Partner,
M/s. Sardesai Shipping Lines,
Cortalim, Goa.
19. D. Mukherjee,
Officer,
M/s. Indian Shipping Lines,
Vasco-da-Gama, Goa.
20. Ashok B. Desprabhu,
Chief Executive,
M/s. Sanghi Brothers (I) Ltd.,
Behind J. M. F. C. Court,
Vasco-da-Gama, Goa.
21. Brito H. Carvalho,
Partner,
M/s. Carsons Ore Carriers Pvt. Ltd.,
Vasco-da-Gama, Goa.
22. F. S. Cabral,
Proprietor,
M/s. Cabral & Co. Pvt. Ltd.,
C/o. Goa Barge Owners Association,
Damodar Bldg.,
Vasco-da-Gama, Goa.
23. A. A. Satoskar,
Assistant Manager,
M/s. Shanghi Motors (B) Ltd.,
A-10, Kossambi Bldg.,
Vasco-da-Gama, Goa.
24. V. M. Bharucha,
Manager,
M/s. Shyama Coastal Sppg. Co. Pvt. Ltd.,
B. No. C, Kossambi Bldg.,
Vasco-da-Gama, Goa.
25. Agent,
M/s. Mackinon Mackenzie & Co. Ltd.,
Vasco-da-Gama, Goa.
26. V. Machado,
Director,
Zuari River Lighterage Pvt. Ltd.,
Suvarna Bldg.,
Vasco-da-Gama, Goa.
27. C. M. Parekh,
Chief Executive,
M/s. Kalyan Shipping Lines,
Gosalia Bldg.,
Vasco-da-Gama, Goa.
28. V. G. Mehta,
Partner,
M/s. Damodar Shipping & Trading Co.,
Mehata House,
Vasco-da-Gama, Goa.
29. U. A. Sarmalkar,
Partner,
M/s. U. A. Sarmalkar,
Vasco-da-Gama, Goa.
30. T. Kesavan,
Partner,
M/s. Agencia Commercial Maritima,
Vasco-da-Gama, Goa.
31. C. M. Dhody,
Chief Executive,
M/s. Maini Shipping Co.,
Melquindas Bldg.,
Vasco-da-Gama, Goa.
32. S. P. Kamat,
Manager,
M/s. Aquarius Pvt. Ltd.,
Kossambi Bldg.,
Vasco-da-Gama, Goa.
33. W. D. Costa,
Resident Manager,
M/s. Importex International,
Telly Flats, Baina,
Vasco-da-Gama, Goa.

**REPRESENTING
EMPLOYERS**

AND

1. B. Mohan Rao,
General Secretary,
United Bargemens' Association,
Kossambi Bldg.,
Vasco-da-Gama, Goa.

**REPRESENTING
EMPLOYEES**

- Shri P. K. Rele, Advocate for Employers.
Shri F. D. Damania, Advocate for Employees.

1. This is a dispute between the employers representing various Companies, both limited and private, on the one hand, and their employees on the other, referred to my Arbitration by the parties under section 10-A of the Industrial Disputes Act, 1947, under an Agreement dated 29th November 1983. The Agreement was published as required by section 10-A (3) of the said Act in the Official Gazette of the Government of Goa, Daman and Diu — Extraordinary, dated 21st January 1984, Series II No. 42, at pages 537 to 540. The employees are represented by their Union known as United Bargemens' Association, of which Shri B. Mohan Rao is the General Secretary. The number of the Companies who are employers is 33, while the number of workmen, i.e. bargemen, is 3000. However, the number of bargemen actually affected by the present dispute is 2500. The dispute in brief arises this way.

2. The barge-crew employed in the industry through their Association served a strike notice under their letter dated 6th December 1980 on all the present employers who are parties to the dispute and also three others, threatening them that they would go on strike from the mid-night of 22nd/23rd December 1980 if their 31-point Charter of Demands dated 24th March 1980 was not satisfactorily settled. This Charter of Demands came to be served on the employers on the expiry of the period stipulated in the earlier Settlement dated 12th March 1977. It appears (vide Exhibit 85) that the Commissioner for Labour who also received a copy of the notice, took notice of the strike and fixed the case for holding conciliation proceedings on 11th December 1980. During these proceedings, on 11th December 1980 the parties on both the sides expressed their desire to discuss the matter mutually and hence they were allowed some time and the conciliation proceedings were fixed on 22nd December 1980. However, even after prolonged conciliation proceedings, no settlement could be arrived at till 23rd December 1980 and, therefore, the bargemen went on strike with effect from 22nd/23rd December 1980. Even then the parties on both the sides requested the Commissioner for Labour that they should be allowed to discuss again the issues in dispute and attempt to resolve the same through negotiations. Even thereafter, no progress could be made by the parties and finally, the proceedings were held on 25th January 1981 and 26th January 1981. Thereafter, some vigorous efforts were made to the knowledge of the then Chief Minister of Goa and ultimately on 24th and 25th January 1981, the parties signed a Memorandum of Settlement dated 26th January 1981 (vide Exhibit 85). The relevant terms of this Settlement run thus:—

"REGARDING WORKING HOURS:

(1) (a) The employers agreed in principle to introduce regulated working hours for the barge-crew, i.e. 8 hours working per day;

(b) The parties having realised that the introduction of regulated working hours for the barge-crew cannot be implemented immediately, agree to prepare a Scheme jointly by a committee appointed for the purpose consisting of four representatives of each side nominated by the United Bargemens' Association (HMS) and the employers who are parties to the settlement;

(c) It is agreed between the parties that in case of any difference of opinion between the Members of the Committee, such differences shall be resolved under the machinery provided hereinbelow:—

(i) Differences on technical matters such as manning and other reports shall be referred to a Board of Arbitrators consisting of one member from each side and headed under the Chairmanship of a person having special knowledge of the subject and nominated by the Government of Goa, Daman and Diu competent to decide such technical matters;

(ii) Any other difference not falling under item (i) above shall be referred to the arbitration of a person acceptable to both the parties;

(iii) Upon finalisation of the Scheme, the parties shall mutually decide the date from which the regulated working hours shall be introduced. In case of difference of opinion between the parties as to the date of introduction of regulated working hours, the parties shall abide by the date fixed by the Arbitrator mentioned in clause (c)(ii) above;

(e) Pending finalisation and introduction of the scheme of regulated working hours, the employers agree to pay from 1st March 1980 compensation equivalent to 50 per cent wage (Basic + FDA + VDA) per month to

each bargeman. It is agreed between the parties that the compensation agreed under this clause shall be payable to the barge-crew in respect of days he is on duty and includes the days when he is on weekly-offs only;

(f) The employers agree that upon introduction of regulated hours of work from the barge-crew, the employers shall pay overtime payment at double the normal rate of wages (Basic + FDA + VDA) for the work in excess of 8 hours per day. It is also agreed between the parties that upon introduction of regulated hours of work, the payment of additional compensation mentioned under clause (e) above shall cease to exist and would stand withdrawn.

The rest of the clauses of the Settlement are not relevant for our present purpose, except clause (5) which reads thus:—

"(5) It is agreed that additional compensation at 1.33 days wage per month shall be paid to the barge-crew with effect from 1st March 1980 or pro rata base on attendance".

3. Thereafter, it appears that the parties could not succeed in preparing a joint scheme, even though they had appointed a committee for the purpose. The parties, therefore, entered into an agreement of 28th January 1983, under which they agreed that Shri P. K. Rele, Advocate on behalf of the barge-owners, and Shri F. D. Damania, Advocate on behalf of the Bargemens' Association, would be entrusted the task of jointly deciding the name of the sole Arbitrator to go into the question and determine the actual terms of reference keeping in view clause (1) of the Settlement dated 26th January 1981, to which I have already made reference above. Accordingly, the Advocates of the parties on both the sides decided upon the name of the sole Arbitrator and also determined the actual terms of reference. The parties then entered into an Agreement (vide Exhibit 86), the relevant clauses of which are these:—

"(b) The matter that will be referred for Arbitration shall be as follows:—

'The employers and the workmen having agreed under Settlement dated 26-1-1981 in principle to introduce regulated working hours for the barge-crew i.e. 8 hours working per day, but being unable to jointly prepare a Scheme as envisaged in the said Settlement, the Learned Arbitrator may decide and prepare a Scheme to regulate the working hours of the barge-crew and determine what should be the pattern of working hours, manning strength and other conditions required to be fulfilled for giving effect to the same and from what date the same should be introduced;'

(d) It is agreed that this settlement is in modification of clauses (c) and (d) of the Settlement dated 26-1-1981 and the Award of the Arbitrator shall be final and binding on the parties".

4. Accordingly, the Government of Goa, Daman and Diu, as I have already stated, issued a Notification and published it in the aforesaid Gazette. The relevant clause of this Notification says thus:—

"2. The matter that will be referred to Arbitration shall be as follows:—

'The employers and the workmen having agreed under Settlement dated 26-1-1981 in principle to introduce regulated working hours for the barge-crew i.e. 8 hours working per day, but being unable to jointly prepare a Scheme as envisaged in the said Settlement, the Learned Arbitrator may decide and prepare a Scheme to regulate the working hours of the barge-crew and determine what should be the pattern of working hours, manning strength and other conditions required to be fulfilled for giving effect to the same and from what date the same should be introduced."

Accordingly, the dispute has come before me for preparing a Scheme in accordance with the aforesaid Agreement.

5. General Notice as required under the law was issued and was served on the parties in accordance with the provisions of law. We have on the record the letter, Exhibit 40, dated 4th May, 1984, from the Assistant Secretary of the Goa Mineral Ore Exporters' Association confirming service of the general notice on all the employers concerned, except M/s. G. N. Agrawal (Serial No. 10), M/s. Indian Shipping Lines (Serial No. 19) and M/s. U. A. Sarmalkar (Serial No. 29). So far as Serial No. 10 is concerned, Exhibit 42 shows that the barge section of that concern is since closed. Regarding

Serial No. 19, Exhibit 55 shows that barge of this company sank and that company now does not own any barge. Serial No. 29 appears to be a proprietary concern owned by Shri U. A. Sarmalkar and Exhibit 46 shows that notice was sent to him by registered post and he refused it. He also refused to sign written-statement of the employers (vide Exhibit 41). The statement of the Assistant Secretary at Exhibit 45 also shows that Shri U. A. Sarmalkar refused to accept the service. As regards Serial No. 24 M/s. Shyama Coastal Shipping Co. Pvt. Ltd., general notice could not be affixed on the barges themselves and, therefore, Exhibit 57 shows that they were displayed on the Notice Boards only because barges were laid up since long. Likewise, in regard to Serial No. 30 M/s. Agencia Commercial Maritima, Exhibit 50 shows that the general notice was displayed in the office because barges were laid up for a long time. Regarding individual service of notices, Exhibits 6, 11, 12, 13, 14, 56, 8, 10, (Exhibits 7 and 15 also), 16, 17, 18, 19, 20, 21, 22, 23, 24, 26, 27, (Exhibit 28), 31, 29, 30, 43/1, 32, 9, 50, 43/2, 34 and 35 show that all these employers, except those at Serial Nos. 10, 19 and 29, were individually duly served. Regarding the rest, I have already stated above that they could not be served for the reasons indicated there.

6. Before I refer to the historical background, it would be worthwhile to state a few facts regarding the ore industry in the State of Goa, Daman and Diu. A reference to Exhibit 95 would show that the employers at Serial Nos. 1 to 10 above (Serial No. 10 is now defunct) are owners and exporters, while the rest of the employers from Serial Nos. 11 to 33 are only owners of the barges but not exporters and they let on hire their barges to the exporters. The items at Serial Nos. 35, 36 and 37 in Exhibit 95 show that there is no fixed basis for the hire charges and it depends upon the agreement entered into between the exporter and the owner every year. Generally, however, the rate of hire charges in fair season varies from Rs. 11.50 to Rs. 12.70 per metric ton. In Monsoon, however, it appears that shipment of iron ore being very little compared to the one in fair season, all the owners of the barges do not let on hire their barges. However, the rate of hire in Monsoon varies from Rs. 10 to Rs. 12.75 per metric ton. The iron ore in Goa is mined in the mofussil and is brought to various loading points in trucks by the exporters. These loading points are situated on the banks of two rivers Zuari and Mandovi. A reference to the map at Exhibit 82 would show that about 12 loading points are on the banks of the river Zuari and its tributaries and 21 loading points are located on the banks of the river Mandovi and its tributaries. A reference to Exhibit 87 would show that these loading points are owned by different companies and normally on each loading point, there is one jetty, but on some of the loading points located on the banks of the river Mandovi and its tributaries, there are two jetties each, while at Vagus loading point at Serial No. 50 in Exhibit 87 there are six jetties. Along the river Zuari also, on two loading points at Serial Nos. 4 and 8 there are two jetty points each. So far as the loading points along the river Mandovi and its tributaries are concerned, the nearest loading point from the Mormugao Harbour is at a distance of 14.50 nautical miles and the farthest is at a distance of 29.20 nautical miles. Regarding those along the river Zuari, the nearest is at a distance of 14.80 nautical miles from the Mormugao Harbour and the farthest is at a distance of 26.50 nautical miles. Another fact which requires to be noticed is that some of these loading points are tidal, while the others are nontidal. Along the river Mandovi and its tributaries, 9 loading points are tidal and the rest are non-tidal except one which is voyage tidal. Now, a tidal loading point means a point where the draft available at low tides is only in the range of 8.5 metres to 1.5 metres. As most of the barges require 2.2 to 2.5 metres draft for loading purposes, barges can be loaded at such points only at high tides when the water level is at the highest. While non-tidal loading points are those even at the lowest tides, the available draft is 2.0 to 2.5 metres and as such barges can be loaded throughout the day both at high tides and also at low tides periods. Voyage tidal means that at some points sufficient water is available at the jetties, but the level of water is less along the channel for the barge to pass through. At such spots the barges have to wait for high tides to proceed further. The instance in point is that at Viridy loading point (vide Serial No. 8 in Exhibit 87), barges can be loaded throughout the day, but loaded barges cannot pass through the tributary into the river owing to lesser draft at the mouth of the tributary and, therefore, they are required to wait for high tides. Likewise, loaded barges can ply through the creek at Cumbarjua only during high tides. So far as the loading points along the river Zuari are concerned, they are all situated beyond the place known as 'Borim Bridge' and owing to restrictions

imposed by the Captain of the Ports for crossing the river underneath the bridge where a barge can cross only against the tide, all barges proceeding to and from the loading points have to anchor near the bridge for want of sufficient tide for almost 4 to 6 hours either way because a loaded barge can cross only at high tide and an empty barge can cross only at receding tide. The result is that although the loading points at Serial Nos. 1 and 2 along the river Zuari are non-tidal, all the loading points as indicated in the last column of the Statement II in Exhibit 87 are voyage tidal.

7. Now, I have already stated that iron ore is mined in the mofussil and it is brought to the loading points in trucks. The barges are either anchored or moved at the loading points for loading them one after the other. These barges are mostly loaded by tippers and chutes, and at some loading points they are loaded by conveyor belts. After they are loaded at these loading points, they sail to the Mormugao Harbour where they are unloaded at Berth No. 9 and Berth No. 6. Sometimes they are directly unloaded with the help of transfer shippers into the foreign steamers.

8. A reference to Annexure A to Exhibit 95 would show that there are in all 178 barges so far as the parties to the present dispute are concerned; otherwise the evidence shows that in the entire territory of Goa there are about 230 to 250 barges. Of these 178 barges belonging to the employers who are parties to the present dispute, 19 belong to the employers at Serial No. 1 M/s. V. S. Dempo & Co. Pvt. Ltd., 12 belong to M/s. Fomento Barges Pvt. Ltd. (Serial No. 2), 19 belong to M/s. Chowgule & Co. Pvt. Ltd. (Serial No. 3), 15 belong to M/s. Sesa Goa Pvt. Ltd. (Serial No. 4), 31 belong to M/s. Salgaonkar Mining Industries (Serial No. 5), 6 belong to M/s. Timblo Pvt. Ltd. (Serial No. 6), 11 belong to M/s. Pandurang Timblo Industries (Serial No. 7), 10 belong to M/s. D. B. Bandodkar & Sons (Serial No. 8), 10 belong to M/s. R. N. S. Bandekar & Sons (S) Pvt. Ltd. (Serial No. 9), 19 belong to M/s. Tolani Ltd. (Serial No. 12), 9 belong to M/s. Kalyan Shipping Lines (Serial No. 27), while the rest of the employers are owners of barges numbering from 1 to 4. All these barges are not of uniform tonnage. Eight barges, of 1000 metric tonnage each, belong to M/s. Chowgule & Co. Pvt. Ltd. (Serial No. 3), while the rest of the barges are of the tonnage varying from 225 to 850 metric tons. However, the carrying capacity of each of these barges is 50 metric tons less each on account of certain restrictions imposed by the Captains of the Ports on the employers. I may also state here that Annexure 'A' also gives in the last two columns light draft and loaded draft respectively in metres. Column No. 5 gives the average number of trips made in a month in the year 1983 by each of these barges. It is significant to notice that the number of trips of each barge in any given month from the loading point to the Mormugao Harbour does not depend on the tonnage. The Annexure further shows that the maximum number of trips made by a barge in a month is 17.7, while the minimum number of trips in a month made by a barge is 1.5. The speed of the barge varies from 4 to 4½ nautical miles to 9 nautical miles per hour. These barges do not carry any navigational aids. The Master of the barge or Sukani in his absence is able to navigate a barge through deep water channel because of his knowledge of the river which is acquired by him sheer by experience. Masters are first Khalasis i.e. sailors, then Sukanis, and thereafter after a long number of years, they become masters. Likewise, in the rivers also, there are no navigational marks like buoys, beacons or light-houses or even transits on the rivers. The barge-crew know very little about navigational instruments, clinometers or lodicators. These facts alleged by the employers in their written-statement in paragraph 23 (b) at pages 19 and 20 are not disputed by the employees in their rejoinder at Exhibit 49.

9. It is necessary here to notice the reasons why the barges are not in a position to make even a trip per working day in fair season, much less in Monsoon. We have on the record sufficient material to show that there are various factors which operate resulting into the detention of a barge both at the loading point and also at the discharge point, apart from the reasons for detention on the voyage between a loading point and a discharge point i.e. Mormugao Harbour. In this connection, I may refer first to Exhibit 73 which are statements of facts giving certain other facts and also the reasons for detention. These are:—

- (1) Loading stopped as vessel's height is above the loader and also insufficient depth of water at stern;
- (2) Vessel moved forward for deeper draft;
- (3) Mechanical break-down;
- (4) Electrical trouble;

- (5) No electric supply;
- (6) High tide;
- (7) No loading due to bad weather;
- (8) Checking the draft;
- (9) Suspension of loading due to rough weather;
- (10) Electrical break-down;
- (11) Main supply off;
- (12) Shifted from Hatch No. VIII to Hatch No. VI;
- (13) Cleaning the loader chute;
- (14) Shifting from one hatch to another;
- (15) Loading stopped on Maratha Transhipper, under the instructions given to the Duty Engineer;
- (16) No barge due to rough sea;
- (17) Fenders adrift being made fast in position by ship's crew;
- (18) Replacement of carrier roller crane on the loader;
- (19) Replacement of pantograph on loader trolley;
- (20) Electrical repairs;
- (21) Mechanical repairs;
- (22) Trouble with loader chute;
- (23) Waiting for supply;
- (24) Stopping of loading for bad weather;
- (25) Complete stoppage of loading due to mechanical break-down;
- (26) Stoppage of loading on transhipper;
- (27) Stoppage of loading due to no barges along side; and
- (28) Stoppage of loading for motor vessel draft.

10. These are some of the causes of detention in addition to those arising from the geographical conditions of the loading points—tidal and non-tidal. Then again, a reference to Exhibit 95 items Nos. 9, 10, 11 and 12 would show the extent of detention of a barge at loading point, discharge point and as a result of high or low tide per trip from a loading point to the Harbour and back. On an average, the period of detention at a loading point varies from 3 hours to 20 hours; the detention at the discharge point in the harbour from 4 hours to 48 hours, and that on account of high or low tide from 6 hours to 8 hours according to the geographical conditions at a particular loading point. Likewise, the average period of detention during voyage on any account per trip varies from 2 hours to 20 hours. We have on the record also Exhibits 117 to 119 based on the Log Sheets at Exhibit 90 (1.37) which would lend support to the delays disclosed by the documentary evidence on record noted above. Apart from an exceptional delay occurring on some occasions, one thing is certain that the analysis of the documentary evidence already referred to by me would show that the average period of detention per barge at a loading point varies from 1 to 3 hours to 4 to 20 hours depending upon whether the loading point is tidal or non-tidal or whether the loading of other barges is already going on and even availability of ore for loading. Similarly, at the point of discharge in the Mormugao Harbour, the period of detention varies from 3 to 4 hours to 6 to 8 hours. At Berth No. 9 where unloading is mechanised, it takes actually 15 minutes for unloading, but because of the detention of the barge until its turn comes for unloading, this period varies and sometimes exceeds 24 hours also. As regards the detention at transfer vessels, the record shows that it extends to 6 hours. I have already pointed out that detention occurs on account of bad weather, mechanical failure, electrical failure, repairs, restrictions imposed by the Port authorities, etc. and this detention varies from 2 to 3 hours to 20 hours. The result has been, therefore, that there is no certainty about a barge reaching a particular point at a particular time either in Mandovi river or Zuari river. In fact, the entire round trip of a barge as a result of these factors takes on an average 20 to 24 hours; sometimes it exceeds even 36 hours or 48 hours, though occasionally a trip is completed within 10 to 12 hours also.

11. The number of crew of each barge and their duties also assume importance in the present dispute because if the present pattern of working of a barge for 24 hours round the clock is changed to any other pattern, the contention of the employers is that necessarily the present strength of number of crew on each barge will have to be reduced. The present strength is Master 1, Sukani 1, Driver 1, Oilman 1, and Sailors 5 and for a barge having capacity of 1000 metric tons, there is one additional Oilman and one additional Sailor. As regards the nature of duties of each of the crew, I will have an occasion later on to refer to these duties in detail. It is sufficient, however, to observe that generally a Master is in-charge of entire barge and navigational duties.

A Sukani assists the Master in navigational duties. Driver is responsible for maintenance of machinery. Oilman assists the Driver and Sailors are deck-hands. One of the Sailors by rotation is called upon to perform the duties of a cook. During the entire fair season roughly from October to April end, this crew is on the barge round the clock every day for 24 hours. Though they are given weekly rests for one day after the working of 6 days, they accumulate these weekly days and enjoy them whenever convenient for them to do so. In Rainy Season, more than half of the crew is sent home and the remaining crew is on board the barge. It can be seen from the record, particularly the Log Sheets, that during a trip from a loading point to the harbour and back, Master or Sukani, Driver or Oilman are on actual navigation duty for about 8 hours. During the detention period, particularly waiting at loading or unloading points or for tides, when a Sailor is on duty, he is on duty for about 13 hours. During the period of actual loading or unloading, a Sailor is on duty for about 2 hours. Master or Sukani shares the steering duty and Driver and Oilman share the duties in respect of machinery whenever it becomes necessary. Then it is not disputed before me that the barge-crew is not employed on seasonal basis, though they are on actual duty during the period of 7 months from October to April. They are, therefore, employed for the entire year and are paid accordingly their full wages, even though they remain idle for about 4 to 6 months in Monsoon including the period of lay-up. Admittedly, about 90 percent of iron ore is exported from Goa during the 7 months of a year from October to April. Naturally, therefore, the seasonal nature of the trade influences the employment pattern, working conditions and terms of employment offered to the barge-crew. In fact, this has been the position since about 1960. Then 90 per cent of the barges are laid up during the Monsoon and occasionally even in the fair season they undergo survey and major repairs. Obviously, therefore, during this period the presence of the entire crew is not necessary. A reference to Exhibits 70 and 71 would show for what period a barge is laid up in a year. An analysis of these documents would show that in each year from 1979 to 1983 barges have been laid up from 3 months to 6 months and sometimes even for 7 to 9 months. Occasionally the minimum period for which they are laid up is for a period of 1 month to 3 months.

12. Coming to the nature and quality of iron ore exported from Mormugao Harbour in Goa, the statement at Exhibit 88 for the years 1973-74 to 1982-83 would show that the ore is exported in two forms, one of which is known as lumpy ore and the other is fines. Till 1981-82, the statement further shows that the iron ore was exported in the form of pellets. But its percentage generally did not exceed 4 per cent of the total quantity of ore except in 1979-80 and 1980-81 when the percentage of ore in pellets exported was 8.2% and 7.5% in 1979-80 and 1980-81 respectively. Originally, in 1973-74 the percentage of fines was 65.2 and that of lumpy ore was 31.0, but later on the percentage of lumpy ore appears to have reduced gradually and in 1982-83 the percentage of ore in fines was 90.2, while that of lumpy ore was 9.8. No ore in the form of pellets was exported in 1982-83. The total export in metric tons in 1973-74 was 1,26,00,520, in 1981-82 it was 1,30,36,143, while in 1982-83 it was 1,11,85,130 metric tons. It is needless to say that the ore in the form of fines cannot be exported in rainy-season because on account of rains the entire bulk of the ore in fines becomes muddy. The only ore, therefore, that can be exported in rainy-season is the ore in lumpy form, and the statement, to which I have just now referred, definitely shows that gradually the number of barges required for exporting lumpy ore in rainy-season is decreasing. In fact, not more than 20 to 25 barges only ply in rainy-season transporting lumpy ore. A reference to Annexure 'B' to Exhibit 95 would also show that whereas in 1980 the percentage of lumpy ore exported in the entire bulk of iron ore was 2.43, in 1981—2.58, in 1982—3.38, while in 1983 it was only 1.53.

13. It is not in dispute before me that the iron ore market is a buyers' market as contended by the employers. That being the position, the exporters would not be in a position to pass on additional costs, if any, on the buyer, obviously because so far as iron ore is concerned, the exporters in India have to face keen competition in the world market. Japanese are a principal buyer of Indian exporters and they import iron ore even from other countries like Bangala Desh Australia and some of the Latin American countries. Then again, admittedly iron ore industry in India is one of the principal foreign exchange earners.

14. Lastly, regarding wages of the barge-crew, I shall later on show that every time the barge-crew raised the

demand of regulated 8 hours work, their wages were increased and they dropped their demand. A perusal of Exhibits 95 and 121 would show that the total wage of a Master in 1971 was Rs. 444.45 which was increased to Rs. 1,534.05 in 1980, while on 1st July 1984 under the new scales the minimum, the middle and the maximum pay of a Master became Rs. 1,927.55, Rs. 2,386.21 and Rs. 2,946.80 respectively. Similarly, the Driver's total wage in 1971 was Rs. 404.45 which was increased to Rs. 1,534.07 in 1980, while on 1st July 1984 it became exactly the same as that of Master at the minimum, middle and maximum stages. Oilman's wage in 1971 was Rs. 210.33 and became Rs. 1,109.39 in 1980, while on 1st July 1984 under the revised scale it became Rs. 1,502.87, Rs. 1,762.31 and Rs. 2,074.26 at minimum, middle and maximum stages respectively. As regards Sukani, his total wage was Rs. 261.00 in 1971, Rs. 1,109.39 in 1980 and on 1st July 1984 it became exactly the same as that of Oilman at all the three stages, viz. the minimum, middle and maximum. Likewise, Sailor's total wage in 1971 was Rs. 174.00, while in 1980 it was Rs. 939.51, and on 1st July 1984 it became Rs. 1,333.00, Rs. 1,570.82 and Rs. 1,842.62 at the minimum, middle and maximum stages respectively. It would thus be seen that gradually the total wage of the barge-crew is being increased, and I will show later on, mainly because they are required to remain on the barge round the clock for 24 hours every day. At present, therefore, the annual total wage of Master varies from Rs. 32,000/- to Rs. 34,000/-, that of Sukani from Rs. 20,000/- to Rs. 26,000/-, that of driver from Rs. 28,000/- to Rs. 34,000/-, that of Oilman from Rs. 20,000/- to Rs. 26,000/-, and that of 5 Sailors together from Rs. 75,000/- to Rs. 1,20,000/-. Thus, the total annual wage-bill of a barge-crew of one barge varies from Rs. 1,75,000/- to Rs. 2,40,000/-.

15. After having referred to the relevant facts of the ore industry in Goa and the nature thereof, before I come to the question of framing a Scheme, it would be necessary to make a reference to some historical facts regarding the industry with special reference to the barge-crew. The territory of Goa, Daman and Diu was liberated from the Portuguese Dominion in 1961. Prior to 1961, the labour was not organised in Goa. The organisation of labour started in 1961. In fact, in Goa, the barge-crew made first attempt to organise themselves in 1962, and in 1963 there was first Settlement dated 9th November 1963 between the barge-owners who then numbered only 18 and the barge-men who were then represented by the Mormugao Port, Dock Transport Workers' Union, Vasco-da-Gama, and Port, Dock and Water-front Workers' Federation of India. We have on the record the Settlement at Exhibit 79. A reference to this Settlement would show that there was no demand at that time of regulated 8 hours work per day. The demands were mainly of wages, holidays, weekly offs and others. What is to be noted is that clause (5) at page 6 of this Settlement provides that the bargeworkers would be entitled to a weekly off. However, in view of the physical difficulties involved in relieving the barge-crew every week, it was agreed that the weekly offs would be calculated at the rate of 52 days in a year less the Sundays which fall within the period of leave, sick leave and which fall on national holidays and that they would be given inconsecutive off of 4 to 5 days at a time once in a month or two months. In case it was possible for a barge-owner to give weekly off every week, he would do so. It also provides that in case it was not possible to give weekly off within the maximum period of two months, the loss thereof would be compensated by payment of one additional day's wage for every day so lost. The importance of this clause is that the barge-crew recognised the difficulties in granting weekly offs to them because of the nature of work. I have already said that the Settlement does not show that there was any demand for regulated 8 hours work. But if there was any, clause (28) of the Settlement shows that those demands which were not physically covered by the Settlement were withdrawn.

16. In 1964 there was another Settlement dated 31st September 1964, Exhibit 80. It appears from the recitals in this Settlement at Exhibit 80 that the crew decided to work for 8 hours from 2nd September 1964. The then Chief Minister of Goa had taken notice of it and he was to give an Award on 19th September 1964, but he having failed to do so, the crew decided to work for 8 hours. A reference to paragraph 3 at page 2 would show that as a result

of negotiations, the Companies and the Union agreed to pay the barge-crew consolidated wages as stipulated in Annexure 'A' to the Settlement and these wage-scales were made applicable with retrospective effect from 1st September 1962. This clause providing for wage-scales further says:—

"These revised wage-scales represent the composite wages inclusive of all allowances and have been agreed upon without affecting any change whatsoever of the system of work i.e. round the clock, which will remain as in the past."

As regards weekly off, it was agreed that every Sunday will be a weekly off except those occurring during privilege and/or sick leave. However, "in view of physical difficulties involved in relieving barge-crew on every Sunday, weekly offs will be accumulated for a period not exceeding six months and the workers wishing to avail of these weekly offs should advise the Management." This Settlement also provided in clause 30 for payment of short-hand money and the rates specified therein. This Settlement remained in force upto 31st December 1967.

17. Thereafter, in 1970 again, dispute arose between the barge-owners and the bargemen over the dismissal of 49 barge-men and the wages to be paid to them for the period of their absence from 16th February 1969 to 14th May 1969. The dispute was referred to Arbitration under Notification dated 2nd June 1970. The background of the dispute is referred to by the Arbitrator at pages 95 and 96 of the Award and while deciding the question as to whether the bargemen were entitled to the wages for the period they were absent from duty except for 8 hours every day, he has observed thus at page 117:—

"The second question before me is, during the period from 16-2-1969 to 14-5-1969 when the barge-crew worked for only 11 hours in the first instance and 8 hours later on, what should be their wages and other allowances? It is not in dispute that the employers paid the barge-crew for the period from 16-2-1969 to 8-3-1969 the proportionate wage for work of 11 hours out of 24 and for the period from 9-3-1969 to 14-5-1969 the proportionate wage and allowances for 8 hours out of 24. There is no controversy that the pattern of working that obtained upto 15-2-1969 was that the barge-crew had to be on their respective barges for all the 24 hours to undertake work as and when needed. It has also been brought out clearly in the evidence that staying on the barge for all the 24 hours in the day did not mean working for all the 24 hours and that at the most the actual work in handling the barge by the bargemen would cover only about 10 hours. I have also found that in the Settlement of September 1964 these facts were taken into account and the wage was fixed as a composite wage and that other privileges such as weekly offs and the like were given to offset the requirement of continued presence on the barge. The evidence also establishes that under the pattern of working about 25 to 30 trips would be made by the barge per month, roughly one per day. By restricting the hours of work, undoubtedly the number of trips that could be performed by them should have been less, though there is no direct evidence on that point. If the actual working hours were lessened by this means, there is no justification on the part of the workmen to demand that full pay should nevertheless be given. I am accordingly satisfied that the wage proportionate to the number of hours of work done by them during the period from 16-2-1969 to 14-5-1969 as stated above is justified in the circumstances of the case."

18. Then in 1970 again, dispute arose over certain issues, one of them being "What should be the normal working hours of the barge-crew and if overtime wages are payable, at what rate overtime wages should be paid to the barge-crew?" After negotiations, the then parties entered into a Settlement on 13th October 1970 (vide Exhibit 78). In accordance with this Settlement, the dispute was referred to Arbitration. A reference to certain paragraphs in this Settlement would be relevant and in fact quite necessary. In paragraph 9, the Arbitrator says thus:—

"..... However, at the time of loading and unloading the barges, different workmen handle the ore and not those employed on the barge itself. Those iron ore carrier sheets with different capacities are required to be loaded within specified time and these are loaded in three shifts. Most of the barges have to transport iron ore day and night to meet the commitment of loading within a specified time. Sometimes exporters hire other

barges also. Most of the exporters/mine-owners have their own fleet of barges, but 2 or 3 companies are engaged solely in transporting iron ore on hire for others. The barge-crew are stated to be provided with cooking facilities and provision for sleeping on the barge itself. The complement of a barge-crew ranges from 8 to 14 or even more depending upon the size of the barge."

In paragraph 10 at page 4, we have this:—

"This being the case, the barge-crew have to be on board the barge to perform their duties connected with the navigation of the barge itself along the principal rivers to the harbour and back and Mormugao-Betul and back."

In paragraph 16 at page 15, the Arbitrator observed thus:—

"It is not my intention to go into the justification or otherwise of the period of plying. On the evidences on record, it is clear that the plying time will depend upon the various factors like tide conditions, wind speed, type of barge, load factors, engine conditions and of course the human skill added to this all. It is precisely for this reason that one of the companies (not a party to the dispute) has fixed the plying time at 4 hours. The plying time is, therefore, a variable factor. (Witness No. 12/L).

The evidence on the time taken at the loading and unloading points has also been examined. The time required depends upon the type of the ore handled (11/L); the type of ship handling the ore (E/12); the place where it was unloaded (E/11); the size of the barge itself (E/1); and berths available for unloading (11/L). From the evidences recorded, it can be reasonably argued that lumpy ore can be loaded on a ship between 6 and 10 hours and powdery ore between 4 and 6 hours. Loading time at the river is also dependent upon the availability of a barge, method of loading (mechanical or otherwise) and the size of the barge. The time varies from 1½ hours (5/L), 2 to 3 hours (7/L), 3½ hours (4/L), 1 to 1½ hours (8/L), and 1¼ hours (E/1). It can differ from barge to barge and the same barge from one to the other. From Annexure 'A' to the statement of 2/E, it can be seen that the barge 'Rani' took 30 minutes on 1-4-1970, but on 11-4-1970 it took 2 hours 30 minutes and on 22-4-1970 it took 4 hours 15 minutes."

"64. The conclusions arrived at after going through the documentary evidence and oral hearings of the witnesses:— A small barge can complete a round trip within 24 hours and a medium or bigger barge (450 tons and above) can complete a round trip within 36 hours under ideal conditions."

"83. (page 23) It is relevant to mention here that the operation of the barges for transportation of iron ore is only a part of the activities connected with the iron ore mining industry for some employers. The profit or loss accrued as a result cannot be ascribed to the work of barge-crew alone. Secondly, one of the categories of barge-owners who are engaged exclusively in transporting iron ore in Goa have also been operating in other places. It will be difficult to assess their profit or loss as a result of direct operation in Goa alone even if the balance-sheets are produced. On these aspects, I had to rely exclusively on the oral submissions of Shri Desai that their paying capacity has been taken into consideration in submitting their views regarding revision of wage-scales and other benefits as the scales offered to the employees now are on the basis of some of the recommendations of the Central Wage Board."

"85. (page 24) The Goa iron ore industry has not only to face competition within the iron ore industry of other parts of the country because of the low grade content but also as a whole. The country has to face competition from other exporters countries like Australia. While the export of low grade ore is decreasing the cost of production, it is slowly going up and the wage rise in one industry raises the demand in another industry. So he urged that considerations should be given to this aspect before giving any concrete step to the wage structure etc."

"96. (page 27) In framing the Award I have taken into account the element of 24 hours presence or round the clock presence on the barge. The scales of pay framed by me will also take this aspect into consideration as the bargemen cannot be compared with any other industrial workers or with the seamen whose nature of duties are different in many respects."

"139. (page 36) Any change of economy from one to another, pattern of management from one to another should be given sufficient time and care for the employers to survive and employees to benefit as pay scales and connected benefits have repercussions on them. For the employees for working 24 hours weightage has been given in addition to the basic pay. I followed the M. M. P. C.'s method for this weightage but not in its quantum as the working of M. M. P. C. is different from the local company. There are also certain differences in its service conditions which I need not discuss."

"170. (page 46) I have heard both the sides on this issue. I appreciate the difficulty of the employers to plan the leave of the employees which will create difficulty in transportation of iron ore due to uncertainty of loading and unloading or calling of the ships on our harbour which is inherent in the trade of this part of the country.

Award:— The existing practice of granting the weekly offs should be continued and no modification of the scheme is necessary."

19. Regarding working hours, the Arbitrator has discussed the issue in paragraphs 183 to 187 at pages 49 and 50 and has come to the following conclusion:—

"187. (page 50) Bargemen will draw 31 per cent (Thirty-one per cent) of the basic pay minimum of Rs. 40/- as the compensatory allowance as an additional allowance for loss of hours of work or loss of hours of rest for being on board. The compensatory allowance may be termed as boarding allowance or compensatory allowance. No dearness allowance will be admissible on this account. But it will be counted for the purpose of bonus and provident fund and leave benefits."

20. In 1975, the bargemen had served Charter of Demands on the barge-owners on 25th April 1975. The demands were made in respect of interim relief. The demands were in respect of pay fixation, dearness allowance, revision of then existing scheme of dearness allowance with effect from 1st January 1974, working hours, overtime, house-rent allowance, Goa compensatory allowance, weekly off, leave, public holidays, medical/accident benefits, uniforms, washing allowance/arrangement, etc. Joint negotiations were held on 11th, 12th and 13th June 1975 and the interim relief settlement, Exhibit 58, was arrived at between the parties. Interim relief was granted in respect of certain demands under this settlement, with which we are not concerned in the present dispute. However, in respect of certain other demands including working hours, overtime and Goa compensatory allowance, the parties had agreed that various demands made by the United Bargemen's Association be granted with retrospective effect from 1st January 1974 and shall be taken up for settlement. The parties had also agreed to continue negotiations on the basis of the demands. What is significant to be noted in this interim settlement is that no interim settlement could be reached between the parties regarding working hours, overtime and Goa compensatory allowance.

21. Thereafter, in 1977 another settlement dated 12th March 1977 (vide Exhibit 81) was entered into between the parties. Under this settlement, the parties agreed to introduce with effect from 1st January 1975 compensatory allowance at the rate of 8 per cent of the basic wages per month payable to the barge-crew (vide paragraph 4). In paragraph 7, they agreed that the existing boarding allowance should be revised with effect from 1st January 1975 from 31 per cent to 40 per cent of basic wages with a minimum of Rs. 55/- per month and should be termed as 'boarding allowance'. No dearness allowance was to be admissible on this allowance, but it was agreed to be counted for the purpose of bonus, gratuity, provident fund and leave benefits. Paragraph 8 of this settlement provided for two subsidies. The relevant terms are these:—

"In consideration of the barge-crew being required to be on attendance on the barges round the clock and ply the barges as and when necessary, the barge-owners agree to pay to each barge-crew a sum of Rs. 45/- per month as food subsidy with effect from 1-1-1975.

Note:— The food subsidy shall be deemed to be 'wage' for the purpose of short-hand money, provident fund, bonus, gratuity, paid leave/holidays and retrenchment compensation only."

Paragraph 10(i) of the settlement provides for compensatory offs. It was agreed between the parties that with effect from 1-1-1977 the barge-owners should give compensatory offs on the following pattern and then shall be credited at

the rates given below to the compensatory off account at the end of each calendar year:—

"(a) The barge-crew shall be entitled to 15 compensatory offs in each calendar year subject to the condition that each barge-crew puts in minimum actual attendance on the barge for 240 days in a calendar year. In the case of barge-crew putting less than 240 days of attendance on the barge, reduction in compensatory offs shall be made at the rate of one compensatory off for 16 days of non-attendance; or

(b) The barge-crew shall be entitled to one compensatory off for every ten trips in a calendar year, whichever is higher.

(ii) It is further agreed that the first credit of compensatory offs to the account of the barge-crew in terms of clause (i) above shall be in respect of the calendar year 1976 to be credited to his account as on 1-1-1977."

"11. Working Hours:

The Association contends that there should be fixed working hours for the barge-crew and though the pattern of the barge-crew being required to be on board round the clock and ply the barges as and when required has been in force all along, this is the opportune time to revise the said pattern and the workmen should no longer be asked to work as per the existing pattern. The barge-owners, on the other hand, contend that changing the existing pattern is not practical or feasible as it would pose innumerable difficulties. It is, therefore, agreed that in consideration of the barge-crew continuing to work in accordance with the existing pattern, the barge-owners have revised the existing scales as per Annexure I, boarding allowance as per clause 7 and have introduced food subsidy under clause 8 and compensatory offs under clause 10."

"12. Overtime:

In view of the settlement in relation to the demand of working hours, the demand is not pressed and settled accordingly."

Paragraph 13 of the settlement provided that the then existing Trip Incentive Scheme should be continued during the subsistence of the settlement.

22. Then, in 1980, fresh Charter of Demands was served by the Bargemen's Association on the barge-owners. Thereafter, negotiations were started. We have on the record a letter dated 6th October 1980 addressed by the Goa Barge-owners' Negotiating Committee appointed by the barge-owners for the purpose of negotiating the settlement with the bargemen, to Shri S. R. Kulkarni, President of All India Port and Dock Workers' Federation. The letter says that during the period of negotiations the parties had devoted themselves to the issue of working hours for the barge-crew and no progress could be made in respect of the entire charter. A meeting of the Goa barge-owners was then taken, in which a brief resume of the talks was given to the barge-owners including the suggestions made by the addressee regarding the demand of working hours. The letter, therefore, says that Goa barge-owners felt that the existing pattern of working had stood the test in regard to the requirements and exigencies of the export trade of mineral ore since its inception. The Goa barge-owners, however, felt that considering the demand of the barge-crew, effort would be made to study and find out the feasibility of regulating the hours of work of barge-crew. The Goa Barge-owners were also of the opinion that the change, if any, in the existing pattern of working by regulation of working hours of the barge-crew should not be thought of, least implemented, unless both the parties approach the problem with an open mind and study the feasibility and repercussions of such a change on the other service conditions. The barge-owners, therefore, stated in this letter that without parties understanding as to what might be their respective gains and the sacrifice they might have to make for such a change, a positive decision in this regard should not be taken. They, therefore, urged upon the addressee to consider this aspect and suggest his views. This letter was replied to by the President Shri S. R. Kulkarni under the letter, Exhibit 61, dated 19th October 1980. The recitals in this letter, so far as they are relevant for the present purpose, are these:—

"... As far as I can recollect, it was stated during negotiations by the employers' representatives that the employers were not averse to have fixed working hours

for the barge-crew, but that they were unable to assess the problems that might arise out of such a situation.

The barge-crew members are aware of the investment made for acquiring bigger types of barges, transhippers or for modernising mining operations. The Government of India also made an investment of nearly Rs. 80 crores for modernising docking facilities and to instal mechanised unloading plants. But the main grievance of the crew members is that so far nothing has been done to change the existing working system which virtually amounts to bondage labour system.

... If the employers are really interested in the welfare of their workers, there has to be a change of heart and they should agree that the barge-crew deserve fixed 8 hours duty a day. How to implement the new system and when to do it, can be a matter of further joint negotiations."

23. Thereafter, under the letter dated 24th November 1980 (Exhibit 62), the bargemen addressed one letter to the barge-owners, in which they stated thus:—

"This Association, therefore, informs you the unanimous decision taken by the Executive Committee members in the meeting held on 22-11-1980 that if our reasonable and rightful demands are not conceded by all your employers for whom you are representing, on or before 15th December 1980, then our barge-crew members are free to resort to any direct action any day thereafter to get their demands conceded."

24. Then the Negotiating Committee by its Chairman addressed a letter dated 4th December 1980, Exhibit 63, to the General Secretary of the United Bargemen's Association, in which they said:—

"In order to consider acceptance of your demand for regulating working hours in principle, you will appreciate that an in-depth study of the issue is necessary. For this purpose, a committee of experts has been constituted with the directive to submit their report latest by 15-1-1981."

The barge-owners, therefore, requested the Bargemen's Association to bear with them till that time.

25. Then it appears that the dispute was admitted in conciliation before the Labour Commissioner [vide Exhibit 64(1) to (3)]. It appears from this document that during the course of discussions it was found that there was no difference of opinion between the parties with regard to introduction of 8 hours' working for barge-crew. A Joint Committee, however, of the representatives of the parties on both the sides was contemplated to work out the details of introduction of 8 hours' working for the barge-crew. However, as regards compensation, there was difference of opinion between the parties. The Bargemen's Association raised their demand before the Conciliator for conciliation. Then there was a letter, Exhibit 67, dated 9th October 1980, addressed to the Negotiating Committee putting forward their scheme for working out the system based on 8 hours of regulated work. Then Exhibit 91 dated 21st December 1980 addressed by the Chairman, Goa Barge-owners Negotiating Committee, to the Bargemen's Association, appears to be a copy of the report of the Sub-Committee appointed by the Negotiating Committee regarding regulated hours of work of 8 hours per day. It is necessary to refer to this copy in extenso:—

"Without prejudice

(1) The Sub-Committee of experts *prima facie* is of the opinion that regulated hours of work of 8 hours per day can be introduced in respect of barge-crew.

(2) For the purpose of introducing the new system, what changes are required to be made in connection with the duties of the barge-crew will be submitted to the United Bargemen's Association by 21-1-1981.

(3) Basis for *prima facie* opinion is as under:—

(a) The existing crew will be grouped in two and one set of crew (one Master, one Driver and two Sailors) would man a barge for a trip starting from the loading point to M. R. H. and back;

(b) Loading points would be manned by the other crew for the purpose of work in connection with loading of barges and keeping them in readiness for the next trip;

(c) Reporting places i.e. loading points would be notified well in advance;

(d) Other details of the scheme after submission would be discussed with the United Bargemen's Association after 21-1-1981;

(e) Implementation of any agreed scheme would pre-suppose totally the scrapping of the existing wage pattern and evolution of a new wage pattern and other conditions of service."

26. However, even then after some negotiations thereafter, as I have already pointed out, the bargemen served the barge-owners with the notice of strike and ultimately pending the strike, settlement was reached which I have dealt with above, being Exhibit 85 dated 26th January 1981. This settlement was followed by another settlement dated 29th November 1983 being Exhibit 86 which I have already discussed above. According to these two settlements, Exhibits 85 and 86, ultimately, as I have already shown, the present Arbitrator came to be appointed.

27. After having discussed a few facts and the nature of the iron ore industry and also the present system of working of the bargemen, it would be clear how and why the issues now referred to the Arbitrator for his decision under the Agreement entered into between the parties and published in the Official Gazette of the Government of Goa, Daman and Diu, arise for consideration. These issues are:—

- (1) What should be the pattern of working hours?
- (2) What should be the manning strength if there is going to be a change of pattern of working hours?
- (3) The other conditions required to be fulfilled for giving effect to the new pattern, if any, and
- (4) From what date the Scheme should be introduced?

28. Turning to the first issue regarding the pattern of working hours, the learned Advocate Shri P. K. Rele has vehemently argued that it is impossible to introduce any system to reduce the working hours of the bargemen and allow the bargemen to have rest of the barge on the land because of the geographical conditions of the territory of Goa, the maritime practice and the conditions both at the loading points and at the discharge point. In support of this contention, he has drawn my attention to the Settlement at Exhibit 81 and the correspondence at Exhibits 60, 61, 62, 63 and 91, to which I have already made a reference. He has also argued that in view of this correspondence, it cannot be said that the barge-owners agreed to introduce in principle 8 hours regulated work for the bargemen. He has also drawn my attention to the Notification of the Government which reproduces the agreement entered into between the parties (vide Exhibit 1 page 538). According to him, the words "the Learned Arbitrator may decide and prepare a Scheme to regulate the working hours of the barge-crew and determine what should be the pattern of working hours" definitely show that the Arbitrator has a discretion to decide whether the regulated hours of work should be 8 or more than 8. I cannot agree. The word "may" used in the aforesaid clause does not mean that the Arbitrator has a discretion to increase the regulated number of working hours over 8 hours. But it only means that if situation arises where it is not necessary to decide the issue of regulated 8 hours of work, the Arbitrator may not decide it. Moreover, I have already pointed out with reference to Exhibit 64 Sheet No. 1, Exhibit 91, and Exhibits 85 and 86, the last two being Settlements between the parties, that the barge-owners have already agreed in principle to introduce 8 hours regulated work. The negotiations failed not on the question as to whether or not 8 hours regulated work should be introduced but on the question of the mode of implementing such a scheme based on 8 hours regulated work for the bargemen. It may be that ultimately the barge-owners conceded the demand of 8 hours regulated work in principle under pressure of strike or other constraints. But that does not mean that therefore they never agreed in principle to introduce 8 hours regulated work. When one considers the entire body of facts and circumstances regarding the iron ore industry, which in brief I have referred to have, one would not be reasonably able to say that the barge-owners never intended to introduce 8 hours regulated work. They were faced with several difficulties regarding the peculiar circumstances in which they are required to export the iron ore to foreign countries and, therefore, if they thought believing in good faith that any system based on 8 hours regulated work would not be workable, it would not mean that therefore they never intended to introduce the system based on 8 hours regulated work for the bargemen.

29. The learned Advocate Shri Damania in this connection, as an alternative argument, has referred to Articles 42, 43 and 51 of the Constitution of India, the provisions of the Motor Transport Act, 1961, particularly sections 2(f), 2(f)(i),

2(b), 13, 15, 16, 19 and 20, recommendations of the International Labour Organisation, 1919 to 1939, Report of Civil Aviation Authority Chapter V conclusions, Air India Flight and Duty Time Agreement which was objected to by the learned Advocate Shri Rele on behalf of the barge-owners, and also the provisions of the Minimum Wages Act. In support of his argument that a part from whether or not the barge-owners agree to introduce 8 hours regulated work for bargemen, I should prepare a scheme based on 8 hours regulated work because the principle of introducing 8 hours regulated work is not only accepted in other industries, but it is also recommended by the International Labour Organisation. I need not refer to these citations because on the basis of the admissions made by the barge-owners themselves, I hold that whichever scheme is prepared, the basis of that scheme should be and ought to be 8 hours regulated work.

30. The next issue is what should be the manning strength if the existing pattern of working of the barge-crew is changed. It is obvious that this issue is framed because it contemplates that a shift system for either 8 hours or 12 hours is feasible and inasmuch as the present manning strength of a barge is based on 24 hours working round the clock for the bargemen, it would become necessary and would also be proper to reduce the manning strength. It should also be noticed here that the fundamental demand of the bargemen is that they should be given rest of at least 12 hours at the end of every 12 hours work, so that they would be able to have rest at their respective homes. In order, therefore, to consider this issue as to whether or not reduction in the manning strength is necessary, it would be material to go into the details of the duties of each of the members of the barge-crew, particularly in view of the geographical conditions both at the loading points, discharge points and the voyage between loading points and discharge points and back. I, therefore, propose to discuss the duties required to be performed by each of the bargemen while on duty on a barge.

31. On this point, there is very little documentary evidence and the most of the evidence is oral. The Bargemen's Association have examined one Shri Andre Fernandes, a Driver working on the barge named "Chandana" which has a capacity of 1000 metric tons (vide Exhibit 84), Shri Mango Tari who is serving as a Master on one of the barges belonging to M/s. Fomento Barges Pvt. Ltd. (vide Exhibit 92), and Shri Jagannath Krishna Desai who is in service of M/s. A. B. Karsetji & Sons, Bombay, holding the post of Manager, Administration (vide Exhibit 96), while the barge-owners have examined only one witness Shri Subhash Waman Sawant who is a Marine Engineer by profession holding a certificate of competency and presently engaged in ship building activities at Vasco-da-Gama (vide Exhibit 105). I propose to refer to the first three witnesses examined by the Bargemen's Association as A. W. 1, A. W. 2 and A. W. 3 respectively and the witness examined by the Bargeowners as B. W. 1.

32. The witness-A.W. 1 mostly refers to the duties of a Driver and an Oilman serving on any barge. But it is necessary to remember while appreciating the evidence that most of his evidence pertains to a barge of the type of Chandana having capacity of 1000 metric tons. It is common ground that in the territory of Goa there are only eight barges of the type of Chandana out of nearly 220, out of which only 178 barges are of the ownership of the barge-owners who are parties to the present dispute. Some of the replies of this witness, therefore, would be relevant only with reference to the barges of Chandana type. Now, this witness, in paragraphs 3 and 4 at pages 2 and 3, says that when a barge is to be started, he is required to accompany the Oilman into the engine-room and turn the engine. Before starting a barge, its engine is required to be turned to find out if there is any defect developed in the engine such as damage to the valves or bending of the valves. Similarly, he is also required to turn the second engine to see whether there are any defects of the kind noted above. Then he checks up whether there is any diesel oil in the service tank and whether the engine oil is at the required level. If he finds that there is any deficiency, then he directs the Oilman to put in the required oil. He also checks gear oil and if there is any deficiency there, he also directs the Oilman to make it good. Now, according to him, it takes about 20 to 30 minutes to start an engine. In his cross-examination in paragraph 36 at page 17 and paragraph 41 at page 21, he denies that it takes only 2 to 3 minutes to start both the engines. He, however, admits that after both the engines are started, the barge leaves the loading point. He also admits that a barge cannot leave the loading point unless both the engines are started. Thereafter, he was asked with reference to the barge Chandana whether or not out of 38 trips Chandana made between 23rd May 1983 and 11th February 1984, at the time of 27 trips Chan-

dana left the loading points within 5 minutes after the loading was completed. At the time of 2 trips out of 38 trips, though he is not certain but he admits that the barge might have left the loading points 15 minutes after the loading was completed. He also admits that this 15 minutes' time was the maximum required by the barge to leave the loading point after it was completely loaded. In paragraph 41, he has admitted that one takes about one minute to start one engine. He further admits that an engine can be started by opening a valve and engaging a lever, but the distance between the valve and the lever is about 2 metres. He wants us to believe, however, that it is not possible for one man to open the valve and engage the lever because, according to him, if he does so, the air-pressure will be reduced. What he wants to say is that the two operations of opening the valve and engaging the lever must take place simultaneously. He was, however, forced to admit in his further cross-examination in paragraph 41 that after the valve is opened, the air passes through the pipe and stands close to the lever and is blocked there. He, however, denies that after the air passing through the pipe is blocked by the lever, there is no leakage or if there is any, it is negligible. I have absolutely no doubt in my mind that the witness has exaggerated obviously when he says that starting of an engine requires 20 to 30 minutes. It is clear from his admissions with reference to the barge Chandana that starting of engines takes less than 5 minutes including the time taken by all the items which require checking before starting an engine. In this connection, reference to the evidence of B.W. 1 in paragraph 7 at page 3 would make it clear that the operations on all the barges are sequential and one person is sufficient to start engines. According to him, for switching off and on the lever it takes 2 or 3 seconds. In this connection, I may refer to the evidence of the witness-A.W. 2 in his cross-examination in paragraph 38 at page 34 where that witness has admitted that during Monsoon when barges of his Company are tied at the loading points, his Company encourages the crew to proceed on leave if they have such leave to their credit. That witness is a Master of one of the barges belonging to his Company and he further says that in the last Monsoon he himself, his driver and some of the sailors were also on leave. When he proceeded on leave, Sukani and oilman were on the barge. In Monsoon when his barge is tied to the loading point, the engine is required to be started once in every day for charging the battery. It is, therefore, obvious that one man alone, particularly the Oilman, can start both the engines and no assistance of another man is necessary. Apart from it, according to the Log Sheets of Chandana, of which the witness-A.W. 1 is a Driver, the engine was started six times during the period of strike for 26 days.

33. In paragraph 5, the witness-A.W. 1 refers to the duties of an Oilman. He says that once the engines are started, it is the duty of the Oilman to report to the Master that the engines have started. The witness admits that the Master's cabin is 12 feet away. The witness-A. W. 2 in his evidence in paragraph 24 at page 20 admits that if one wants to go to the Wheel House from the engine room, according to him, one would take one minute or a minute and half.

34. In paragraph 6 at page 3, the witness-A.W.1 says that the barge Chandana has got remote control system, while some other barges have telegraphic control system, while yet others have a bell control system. If the Master wants that the engine speed should be made slow or fast, it is not necessary for him to give instructions to the Driver in that regard because he has got remote control system, with the help of which he makes the necessary operations. But the material placed on the record shows that most of the barges are operated with the aid of remote control system. That being the position, it is not necessary to have an independent person for carrying out the necessary operations. Apart from it, according to the witness himself, even the telegraphic control system or bell control system is operated by the Master himself as he does the remote control system.

35. In paragraph 8, this witness-A.W.1 says that the Driver is required to maintain two books, one of which is known as 'Trip Log Book' and the other is 'Diesel Requisition Book'. In the Trip Log Book there are three columns showing the original quantity in stock, quantity consumed and the balance. This Trip Log Book is both for engine oil and also for diesel oil. The Driver is also required to know the time whenever the engine is started and also the time whenever it is stopped at the discharge point or the loading point. Similarly, if for any reason the engine is required to be stopped and again re-started, then both these timings are required to be noted in the Log Book. It is not clear from his evidence what timing is taken by such recording. But one thing is clear from the record, particularly Log

Sheets at Exhibits 119 and 118, that the extra engine running hours along side transfer vessel do not exceed 43 minutes per trip, at Vagus loading point 14.6 minutes per trip, and at Berth No. 9 in Mormugao Harbour 23 minutes per trip.

36. In paragraph 9, the witness-A.W.1 says that while the engine is on the run, one of the duties of the Driver is to check gear oil pressure and temperature. Another duty is that whatever oil drifts from the shaft, it is to be collected in a basin and after the basin is full, it is to be poured back into the tank. Similarly, there are two generators in Chandana and they are to be operated by the Driver with the help of two oilmen. They are required to be operated for filling the air bottles with air, for lighting the electric lamps at night and for operating water pumps. The generator is required to be operated because without it the water pumps cannot be operated. The compressors are to be operated with the help of the generator. He says that this operation is done either by him personally or under his directions by the oilman. The water-pump is also operated either by the Driver or by the Oilman under his instructions. At the end of paragraph 9, he tells us that it takes about an hour for emptying the tank, and for filling it, it takes 1 to 1½ hours. Now, in his cross-examination in paragraph 59, he admits that 'checking oil' means dipping a stick in the oil tank. After it is taken out, the oil is wiped out and then again it is inserted into the engine and then the level of the oil is observed. This is the method adopted for changing both engine oil and diesel oil. This operation of checking oil is exactly similar to that of checking engine oil in a motor car by its driver. It does not take more than half a minute. Regarding pouring back the oil, dipping from the shaft into the oil tank, it is clear from the evidence of this witness that this operation is peculiar only with the barges of Chandana type carrying capacity of 1000 metric tons. The witness is a Driver on the barge Chandana and he admits in paragraph 44 that the shaft of Chandana is oil cooled, while the shafts of Dilip and Jyoti, which have carrying capacity of 500 metric tons each, are cooled by sea water. He admits that majority of the barges in the territory of Goa have shafts which are cooled by sea water. In Chandana, for oiling shaft, Coral-T oil is used. He admits that this is thick oil. He wants us to believe that though the oil drops from the shaft by drops and not by continuous flow, the quantity dropped from the shaft is about 25 to 30 litres, though the capacity of the oil tank is only 40 to 50 litres. He admits that he has no knowledge about the dropping of oil from the shafts in other barges. According to him, even in Chandana in 1974 about 15 litres of oil used to drop from the shaft. But in 1983 the oil so dropped was about 25 to 30 litres. But he was forced to admit in his cross-examination that he never made a report about it to the authorities concerned even at the time of survey which is made once in a year. About filling of diesel in service tank, he admits in paragraph 38: page 20 that all barges are not fitted with service tanks. He further says that in Goa there are about 100 barges which are fitted with Cummins engines. According to the barge-owners, these barges which are fitted with Cummins engines are not fitted with service tanks. When the witness was confronted with this position in paragraph 38, he replied that he could not say whether the barges which have Cummins engines are not fitted with service tanks. In fact, the witness-A.W.1 in paragraph 8 of his evidence has told us that standard barges do not have service tanks. He also says that barges fitted with Cummins engines do not have service tanks. Regarding the operating of two generators, in paragraph 45 the witness-A.W.1 admits that even in Chandana barge, though there are two generators, only one is operated and the other is treated as a stand-by, and all that one is required to do for starting a generator is to turn the handle; for lighting electric lamps one is required to press the electric button and for starting water-pump one is required to operate the lever. Operating the lever means pushing it forward and when it is not to be operated, it is to be moved backwards. Regarding compressors, he also says that though Chandana has two compressors, one is used at a time and the other is only a stand-by. Operating compressor means pressing an electric button. Now, the water-pump is required to be operated twice a round trip. Regarding emptying the water tank by operating water-pump, in paragraph 45 the witness says that before switching on the water-pump, the valve fitted to the water-pump is required to be opened and then in order to let out air from the filter, there is a device like a water tap which is known as air escape cock which is required to be opened. When this cock is opened, sea water comes in and air, if any, is expelled. There is one more valve to the pipe line next to the filter and this valve is required to be opened in order that the water should

flow to the pump. Then the auxiliary engine is put to the gear by inserting one handle and then the sea water starts flowing out. It seems to me, therefore, obvious that operating the water-pump would take about 5 minutes. According to the witness-A.W.2 (vide paragraph 23 page 20), only 20 per cent or 30 per cent of water in the tank is to be pumped out or pumped in every time, and the evidence shows that this is done twice during the voyage.

37. In paragraph 10 at page 6 of the evidence of the witness-A.W.1, he refers to the duties regarding cleaning of filters. He says that both the engines of Chandana barge are attached with sea filters one each. These filters are required to be cleaned twice or thrice a week. The reason, according to him, is that because of the shallow water, muddy water gets into the filters and they get choked up. Similarly, generators are also attached with filters and they are required to be cleaned once in 15 days or in a week. He has also referred to the duty of changing the oil and he says that engine oil is required to be changed after every 250 to 260 hours of operation. According to him, whenever fresh engine oil is to be put in, the old used up oil is required to be flushed out. In his cross-examination in paragraph 37 at page 18, he says that the difference between Chandana on the one hand and the other barges such as Dilip and Jyoti on the other is that while Chandana has two generators, two compressors and two air bottles, Dilip and Jyoti are not fitted with either generator or compressor or air bottle. In Chandana barge, there are 9 filters in the engine room, while Dilip and Jyoti have each 4 filters in their respective engine rooms. Then again, in Chandana there are two glands and in Dilip and Jyoti each have also two glands, but in Chandana the glands are cooled by oil, while in the other two barges they are cooled by sea water. The result is that the glands in Chandana become very hot so much that it becomes impossible for the Driver even to touch them, while the glands in the other two barges do not become so hot as to make it impossible to touch them. The witness-B.W.1, however, tells us that cleaning of the filters is necessary once in 2 or 3 months. Cleaning involves opening of the top cover, cleaning the inserts (or filters) inside and putting it back. One filter would take about 10 to 15 minutes for cleaning it. Each barge is fitted with two such filters. The cleaning of two filters, therefore, would take about half an hour. But whereas the witness-A.W.1 says that the cleaning is done twice or thrice a week, the witness-B.W.1 says that it is done once in 2 or 3 months. It may be that the filters in Chandana might require cleaning twice or thrice a week. The witness-B.W.1 is a Marine Engineer and is also a manufacturer of barges. It is, therefore, difficult to believe the witness-A.W.1 when he says that the cleaning of the filters is required twice or thrice a week even in the barges of the type of Dilip and Jyoti. A question of cleaning filters attached to the generators does not arise in the case of a large number of barges of the type of Dilip and Jyoti, because the majority of these barges of the type of Dilip and Jyoti are not fitted with either generator or compressor or air bottle. Regarding the change of oil, it is clear from the cross-examination of the witness-A.W.1 that engine oil is changed after every 50 to 60 trips i.e. once after about more than three months.

38. In paragraph 11, the witness-A.W.1 says that gear oil is changed after every 500 operating hours or if any defect is detected. In paragraph 47 at page 26 in his cross-examination, he says that gear oil is changed in the workshop. He also speaks about the replacement of bursted water or diesel pipes being one of the duties of Driver/Oilman. Of course, bursting of a pipe is certainly not a routine event. It must occur rarely and, therefore, whenever it occurs, it may be one of the duties of the Driver or Oilman on the barge.

39. In paragraph 13, the witness-A.W.1 describes the duties of an Oilman where he speaks about greasing of anchor winch nipples and connecting parts, greasing of rudder chain, cleaning wheel and greasing nipples. He says that each anchor winch has four nipples which are required to be greased once or twice a week and this operation is also carried on by an Oilman. The parts which are connected with gears are also required to be cleaned and greased once in a week which is also done by an Oilman. Similarly, the rudder chain is required to be greased and cleaned once in a month. There are 6 to 8 grills in the engine and each has one nipple and these nipples have to be greased and the wheels to be cleaned. These duties are also performed by an Oilman. In paragraph 79 at page 46, he says that greasing of four nipples of anchor winch requires 10 to 15 minutes; cleaning and greasing of parts connected with gears require 30 to 45 minutes and cleaning and greasing of nipples of 6 to 8 wheels in the engine require only 20 to 30 minutes.

40. In paragraph 14 at page 8, the witness-A.W.1 refers to the duties of Driver/Oilman regarding replacement of glands. According to him, the glands in Chandana are replaced once in a month, while those in other barges of the type of Dilip and Jyoti they are replaced once in 2 of 3 months. I have already said that in the entire territory of Goa there are only eight barges of the type of Chandana, while the rest of the barges are having capacity each of 250 to 500 metric tons and a few of them 600 to 750 metric tons. In his cross-examination in paragraph 48 at page 27, he says that a gland is a rope made of hemp or graphite. Changing a gland means unwinding the old gland and winding a new one. When a gland is to be replaced, four pieces of the gland (rope) each of 1 foot in length are required to be inserted in four different directions in the 'stuffing box'. Even in Chandana, he was forced to admit that last time when the gland was supplied to him was on 16th February 1984. That means that since thereafter till his evidence was recorded before me in May 1984 there was no occasion for him to change the gland. His statement, therefore, that in Chandana the gland is required to be replaced once in a month is obviously an exaggeration.

41. In paragraph 15, the witness-A.W.1 refers to the watch keeping duty in the engine of Driver/Oilman while the barge is on the run. He tells us that during the running of the engine, the engine-room gets heated and, therefore, after every 30 minutes the duty of remaining in the room for the purpose of watching the engine is done by Driver or Oilman alternately for 30 minutes. Now, in paragraph 49 in his cross-examination at page 27, he admits that in Chandana the engine-room has two blowers in addition to two cowl vents. According to him, there are only two sky lights in the engine-room. In paragraph 73, he admits that when the Driver is not in the engine-room, his work is looked after by an Oilman. He further admits that during the period he was giving evidence before me for 4 to 5 days, his work was being looked after by an Oilman. In fact, the witness-A.W.2 in paragraph 25 at page 22 of his evidence has told us that in the absence of a Driver, an Oilman can control the engine-room. When a barge is on the move, the Master, the Driver and the Sukani all are not in the Wheel House at one and the same time. It is, therefore, difficult to believe the witness-A.W.1 when he says that the watch duty in the engine-room requires two persons—a Driver and an Oilman—who can do the watch duty alternately each one for 30 minutes only.

42. In paragraph 16, the witness-A.W.1 says that engine-room is cleaned by an Oilman after every 15 days and the engine is cleaned after every two days. Both these duties, according to him, are performed by an Oilman. In paragraph 51 at page 23 of his cross-examination, he says that one takes about 30 to 45 minutes for cleaning the engine-room. He also refers to the duty of cleaning engine. According to him, there are about 16 engine heads and one takes about 1½ hours to clean them. He admits that this cleaning of 16 heads of engine is done when oil is changed and he further admits that oil is changed after every 50 to 60 trips.

43. I have already pointed out above that a barge is required to be surveyed once in a year and during the period of survey it is laid up. According to the witness-A.W.1, it is the duty of the driver to supervise the work done in the workshop and to take trial after the survey once in a year. Likewise, the duty of cleaning the engine after survey is that of an Oilman. In paragraph 64 in his cross-examination at page 37, he admits that when a barge is taken for survey, it remains in the workshop for a period between 3 and 6 months. In fact, he also admits that he does not know about the practice regarding survey in regard to other barges because the survey practice he has referred to is only in regard to the barges belonging to M/s. Salgaonkars. Now, it is needless to say that when a barge goes to the workshop, there is hardly anything for the driver of a barge to supervise because every workshop has its own officers and workmen and the survey is done under their supervision. He admits that M/s. Salgaonkars have their own workshop at Cortalim. He also admits that the workmen in that workshop are responsible to their Manager through their supervisors. He further admits that sailors are not responsible to see whether or not the workmen such as welders etc. have done their work properly during the period of survey. Lastly, he admits that when Chandana was in the workshop during the survey period, he was not there from the beginning to the end of the survey period but only for the last 10 days. Even the Master of Chandana was not present during that period. It is, therefore, difficult to believe this witness when he says that it is one of the duties of the driver of a barge to

supervise the work during the survey period. He also refers in paragraph 30 to the duty of cleaning the engine by an Oilman and taking the trial by a Driver. It is obvious that after the survey is over, if a trial is to be taken of a barge, it would be the duty of a Driver to take a trial. Regarding the cleaning of engine, his cross-examination in paragraph 79, as I have already pointed out, shows that he has admitted that cleaning of engine takes about 30 to 45 minutes.

44. In paragraph 32, the witness-A.W.1 refers to the duty of pumping out rain water from barges during rainy-season. This duty is either that of Driver or Oilman. It is obvious from his cross-examination in paragraph 66 at page 41 that if it rains continuously, then water is required to be pumped out twice a day. If, however, rain water is less, then pumping is done every alternate day. Pumping out of rain water involves starting the pump and after water is removed, stopping the pump.

45. Turning to the duties of Sailors, in paragraph 17, the witness-A.W.1 refers to the duties of tying a barge to a pier, holding the beam and to bring 2 or 3 cans of engine oil from the shore. Tying of a barge to a pier or holding a beam or bringing 2 or 3 cans of engine oil are required to be done when a barge is loaded and/or when it reaches the harbour. According to him, each of the three duties requires four Sailors. Now, for tying a barge to a pier, the witness-A.W.2 has said in paragraph 5 of his evidence at page 6 that there are already men on the shore to tie a barge to a pier. It is, therefore, difficult to understand why there should be any sailors on the shore to tie a barge to a pier. It is true that according to these two witnesses A.W.1 and A.W.2, for throwing ropes, two sailors in front and two sailors on the back-side of a barge are required to throw ropes on the shore. Now, in the first place, I am inclined to think that only two sailors—one in front and one in back-side—would be sufficient to throw a rope on the shore when there are already men present to catch the rope and tie the barge to a pier. Moreover, it appears from the cross-examination of the witness-A.W.2 in paragraph 21 at pages 16 to 18 that on most of the occasions a barge is surrounded by other barges and it is to be tied to any barge adjacent to it. That being the position and all the barges being fitted with bollards for tying ropes, it is quite easy to tie one barge to another, particularly when the distance between the bollard of one barge and that of another adjacent to it is about 1 metre. It is clear from the cross-examination of this witness that when one barge touches the other at its bow, the sailor on one barge makes a loop of the rope and throws it on the bollard of the other barge. It seems to me, therefore, that the requirement of four sailors for tying ropes in addition to the men on the shore ready for tying ropes to the pier, is an exaggeration. Regarding the holding of a beam, the witness-A.W.1 says in paragraph 17 that two sailors are required to hold a beam about 12 feet in length and 6" to 8" in width in between the pier and the barge, so that the barge does not drift towards the pier. In his cross-examination in paragraph 23 at page 29, he admits that one end of the beam is put into the combing bracket and the other end which has a rope tied to it is held by a sailor. It is, therefore, difficult to see how two sailors are required for holding the beam. So far as the duty to bring 2 or 3 cans of engine oil from the shore is concerned, he says that if 2 cans are to be brought, two sailors are required, and if 3 cans are to be brought, three sailors are required. Now, I have already indicated that the witness-A.W.1 is a Driver on the barge Chandana belonging to M/s. Salgaonkars. The practice of collecting oil is only with Salgaonkars (vide paragraph 54). As regards other barges, A.W.2 in paragraph 39 at page 34 says that they receive only one type of oil in a barrel from their employers either at Berth No. 9 or at break-water. The river fleet office delivers it at the jetty and then from there sailors bring it on the deck of a barge. He, however, could not say how many times this oil is delivered to them either in a month or in days. Further, the witness-A.W.1 says that a barge is required to be moved forward and backward when it becomes necessary and on such occasions also, four sailors are required at a time. In his cross-examination in paragraph 50 at page 28, he admits that normally movements of a barge at a loading point are made with the help of ropes. He further says that such movements are also made with the tide. He admits that whatever the number of sailors are there, no movement of a barge can be made against the tide. Now, even according to him, when these movements are made, normally a barge is required to move within a distance of 10 to 12 metres. If, therefore, these movements are to be made within a distance of 10 to 15 metres and with the aid of ropes, it is difficult to understand why at a time four

sailors would be necessary. Lastly, he refers to the duty of spreading over in the hold if a barge tilts. In paragraph 55 in his cross-examination at page 31, he admits that if at the time of loading a barge tilts on one side, then ore is put on the other side so as to render the barge stable. He also admits that by this method alone a barge is made stable whenever it tilts on one side at the time of loading. He also admits that sailors never spread over in the hold when the barge is being loaded.

46. In paragraph 18 of his evidence, this witness-A.W.1 says about the duties of lifting of 10 tyres every time after loading is completed, cleaning of deck, spraying of water on the ore in hold and shifting ore from the sides of the hold to the centre. According to the witness, for each of these duties, two sailors are required. Regarding the cleaning of deck, it is done twice every trip and shifting of ore is done once every trip after a barge is unloaded. He is not in a position to state in his evidence what time is taken by sailors to perform this duty. Now, in paragraph 18, he says that there are about 18 tyres placed on the lateral sides of the barge (Chandana) outside, so that they operate as buffers. After the loading is completed, about 10 tyres from both the sides together which are likely to touch the water are required to be taken up and placed on the deck. This work is done, according to him, by two sailors. I had an occasion to inspect a barge named Bhadrabad belonging to Fomento Company and my notes of inspection are at Exhibit 122. In paragraph 5, I have noted that these tyres which are chained on either side of the barge are required to be taken up and kept on the deck when the barge is loaded and that one man can easily handle the tyres and keep them on the deck. Regarding cleaning of deck, to which duty the witness-A.W.1 has referred in paragraphs 18 and 19, what is stated is that when a loaded barge is actually on voyage, some particles of ore fly in the air and, therefore, it is necessary to spray water on the ore kept in the hold, so that the particles do not fly off and obstruct the vision of the Master. According to him, this operation is done by two sailors. Now, a reference to paragraphs 57 and 59 of his evidence would show that these particles fall on the deck and the place where they fall is of 10 metres in length and 1 metre in width. If that is so, one can hardly accept the statement of the witness that two sailors are required to spray water on the ore kept in the hold. Regarding shifting of the ore, it is common ground that bilge wells are at the end of the hold and the ore is put at the centre. That being the position, here again it is difficult to believe that two sailors would be necessary for shifting the ore and putting it at the centre even if it becomes necessary.

47. In paragraph 20, the witness-A.W.1 refers to another duty of sailors of removing water from rudder tank in Chandana. According to him, this is required to be done after every three days. But this operation is only relevant in the case of barges of the type of Chandana.

48. Paragraph 21 of the evidence of A.W.1 at page 11 refers to the duty of cooking every day. According to him, one of the sailors does the actual cooking and another assists him. It is clear from the evidence of the witness-A.W.2 in paragraph 12 at page 11 that one sailor requires 2 or 3 hours in the morning and 2 or 3 hours in the evening for preparing meals. I shall later on show that most of the staff on a barge remains idle, though it is on the barge, for more than 10 to 12 hours in a day. The actual navigation duty for each of the members of the crew is only about 8 or 9 hours and occasionally for 10 hours. That being the position, it would not be difficult to do cooking even if there are only two sailors in the barge. The witness-A.W.1 also refers to the duty of a watchman required to be done by a sailor when the barge is actually on the move. It, however, appears from his cross-examination in paragraph 60 at page 34 that Master of a barge, while he is in the barge, is in its cabin, when the barge is on the move. He can have a clear view of what is going on or happening in the sea or river. But the witness says that articles like small wooden logs or fishing nets cannot be seen by a Master. Even according to the witness, the distance between the Master's cabin and the bow of a 500-ton barge is about 35 to 33 metres. Then again, the witness admits that a barge can be halted within a distance of half its length after the object is sighted and that too when the barge is in good speed. The witness-A.W.2 in paragraph 28 of his cross-examination at page 25 says that when the speed of a barge is to be slowed down if any obstruction is seen in the way, all that is required to be done is to bring the lever to the slow point. If there is any emergency and the barge is required to be stopped suddenly, then the lever is first brought to the neutral position, then to the slow stern and then to the full stern. In an emergency this takes about

half a minute. The witness also says that if a barge is moving at the normal speed and there is low tide and Master is required to stop it suddenly as a matter of emergency, then after operating the lever for stopping it completely, it comes to a halt after moving for a distance of about thrice its length. If, however, there is high tide, then it comes to a complete halt at a distance of about four times the length. It seems to me, therefore, that it is absolutely not necessary to have a separate sailor for watch duty sitting at the bow of a barge.

49. In paragraphs 22 and 23, the witness-A.W.1 says that one of the Sailors is required to purchase food articles once every day and also when a barge is aside a transhipper. Now, it is obvious that a barge can be either at Berth No. 9 or aside a transhipper for discharging its load. It cannot be at both these places on one and the same day. Moreover, when the work of unloading is actually going on, there is hardly any duty as such for the Sailors of the barge. Obviously, therefore, one of them can be spared for purchasing food articles. Moreover, strictly speaking, it is not one of the official duties of a Sailor on a barge. Purchasing of food articles and cooking which are necessary for the daily needs of the crew are in fact concessions or facilities allowed to them by the employers.

50. In paragraph 24, there is a reference made by the witness-A.W.1 to Michigan tyres which are required to be removed once in a year and restored to their original position by tightening their bolts. The witness admits in his cross-examination in paragraph 59 that normally a Michigan tyre does not come down unless it is badly damaged or the chain gets rusted. He further admits that between February and May 1984 no Michigan tyre on Chandana had come down. Last time when Michigan tyre had come down was in 1982. Obviously, therefore, this cannot be considered to be one of the routine duties.

51. In paragraph 29, the witness-A.W.1 refers to the lighting of lanterns as one of the duties of a Sailor when a barge is anchored in harbour or at jetty. It is obvious that this duty does not require more than one Sailor.

52. Regarding the duty of dropping and heaving an anchor, the witness-A.W.1 says in paragraphs 25 and 26 that at a time four sailors are required to heave an anchor. In his cross-examination, in paragraph 61 at page 35, he admits that when an anchor is to be dropped in the sea, its brake on the winch is required to be released and when it is to be heaved up, what one is required to do is to operate the winch. This winch has handles on two sides each on one. In some barges a motor is fitted to the winch and the anchor is heaved by operating that motor. It was suggested to him that occasions for dropping anchor between harbour and loading points are very rare, but he has denied this suggestion. But considering his cross-examination, I am inclined to think that such occasions are no doubt very few. Moreover, it is impossible to believe that four sailors are required to heave an anchor. In this connection, I may refer to my notes of local inspection at Exhibit 122 in paragraph 3 wherein I have noted how I watched the actual anchor operation both the dropping of it and heaving it up. Not only that, I also tried my own hands for some time but I have no doubt that minimum two Sailors are necessary for dropping the anchor and heaving it up. It is impossible to believe that for this operation four Sailors are required at a time.

53. The witness-A.W.1 also refers to repairing of ropes as one of the duties of Sailors. But in his cross-examination in paragraph 63 at page 37, he has admitted that when he says that when ropes are damaged they are required to be repaired, he means that they are required to be knotted. Obviously, therefore, this duty can be attended to by one Sailor and it would not require more than 5 to 10 minutes.

54. In paragraph 29, he refers to some of the duties of Sailors such as selection of tyres, taking wire ropes from workshop to the barge for tying the tyres and bringing raft buoys and other equipments from the workshop. Admittedly, these duties are required to be performed by Sailors once in a year after the survey is completed. According to the witness, 5 or 6 sailors are required to attend to these duties. In his cross-examination in paragraph 64 at page 38, he admits that the practice regarding the survey, to which he has referred in his examination-in-chief, relates to the barges belonging to M/s. Salgaonkars. But he does not know about the practice regarding the other barges. Moreover, it is clear from his evidence that most of the crew including Master, Sukani, Driver and Sailors remain present on the barge only a few days before

the survey is completed. One or two members of the crew remain present on the barge at the time of survey. It is, therefore, difficult to believe that 5 or 6 Sailors are required to do the selection of tyres, taking wire ropes from the workshop to the barge for tying to the tyres and for bringing raft buoys. Surely, two Sailors can perform these duties after the survey is over.

55. In paragraph 31 at pages 14 and 15, the witness-A.W. 1 says that during Monsoon when barges are moored and anchored at Vagus jetty, the wooden logs thrown by water current, if they get entangled with the anchor, are to be removed and if they come in between two barges or in between a barge and a jetty, they are also required to be removed and this work is done by 2 or 3 Sailors depending on the size of the wooden logs. He further says that generally barges drift along with their anchors and on such occasions the anchors are required to be shifted and the barges are required to be brought back to their original places. This job, if the barge is a bigger one, requires 4 Sailors, while for a smaller barge this work can be done by 3 Sailors. Now, in the first place, in Monsoon at Vagus jetty, to which the witness refers, barges moored or anchored are all empty and weight of any floating object is negligible compared to the weight of an empty barge. Moreover, as I have already pointed out, the witness refers to Vagus loading point and he has admitted that at Vagus loading point anchor is never dropped.

56. Turning to the evidence of Mango Tari (A.W.2), he has been serving as a Master on one of the barges belonging to M/s. Fomento Barges Pvt. Ltd., and at present he is a Master of the barge named 'Kartika' belonging to his Company. His evidence refers to the duties of not only the Master but also the Driver, Oilman and Sailors. In paragraph 3 of his statement, he says that before his barge leaves the break-waters for going to a loading point, he is required to check different articles on the barge, crew and check the certificate of the Driver and then he proceeds to the loading point. He is also required to see the order of the Management to find out to which loading point he is required to go. Then he checks the ballast tank in order to see whether there is water and if it is found that water is less, he asks the Driver to fill the tank. Then he commands the Driver to start engines. When engines are started, he comes to know about the starting of engines by their sound. Then Oilman goes to him reporting that engines are started and then he orders commencement of the voyage. He tells us that if the report of starting of the engines is not given to him before the commencement of the voyage, then it is likely that the Driver or Oilman may sustain injuries. Then he asks the Sailors to go to the shore and untie the ropes. According to him, for untying these ropes 4 Sailors are required because one of them goes to the shore, 2 remain on the aft side of the barge and one on the front side. Thereafter, he stands at the door of the wheel-house and asks Sukani to handle the steering wheel and the Driver to control it. One Sailor is asked to remain on the aft side of the barge. The Driver controls the engine from the wheel-house. Then he watches the current of the water and the direction of the winds and then takes the barge out. While taking out the barge, if it is surrounded by other barges, his barge is required to be taken forward or backward, in which case he requires the assistance of the Driver. If, however, there is only one barge along side his barge, then the assistance of the Driver is not necessary. On such occasions, he says, Sukani is at the wheel and he stands at the door of the wheel-house and gives necessary instructions to his Driver and Sukani to make the necessary movements for taking out the barge. At that time the Driver remains in the wheel-house controlling the lever and the sailor who is on the aft side is required to see if there is any obstruction to the rudder and if there is any, he informs him (Master). After the barge is taken out, the Sailors are required to lift up the tyres 15 on each side, in all 30, and place them on the board. This work is done by two Sailors. It would thus be seen, that according to his examination-in-chief, four Sailors are required for untying ropes and two Sailors are required for taking up 30 tyres and keeping them on the board. In paragraph 21 in his cross-examination at pages 16 to 19, he admits that if a barge is to be taken along side of another barge, then the bow is to be taken first near the bow of the other barge. All the barges are fitted with bollards at the bows. These bollards are used for tying ropes. When the bows of the two barges touch each other, the distance between their bollards is about 1 metre. He further admits that when the bows touch each other, the sailor on one barge makes a loop of the rope and throws it on the bollard of the other barge. Sometimes the rope misses the bollard, but on the second time it catches the bollard. Thereafter, the other end of the rope is required to be tied to the bollard of his own barge and then the other end of the barge

is brought near the end of the first barge with the help of the engines. The other ends of these two barges are also fitted with bollards. Once the rear ends of the two barges come near each other, the same operation of looping the bollard of the other barge and tying the rope to the bollard of the first barge is carried out. The very same operations are carried out for tying barges even at the loading points and also at Berth No. 9. He also admits that so far as the operations to be done on the barges for tying one barge to the other along side are concerned, tying at both ends is enough. He wants us to believe that in addition to this operation, there is also another operation which is required to be performed and that is of tying the barge to the pier on the shore. But then he adds that this is required to be done only when there is a strong current. At the loading point if his barge alone is to be taken, then, he admits, it is taken with the bow of the barge first approaching the shore and then one sailor in his barge would throw one rope from the bow to the man on the shore and then the man on the shore would loop it to the bollard on the shore and the sailor throwing the rope would tie the other end of the rope to the barge's bollard. Then the other end of the barge is to be taken near the shore either by running the engine and sometimes by current, and then the same operation of throwing the rope and tying the barge is followed. He adds that at this time the first rope with which the bow end of the barge is tied, is required to be loosened. He denied that the rope looped round the bollard automatically gets loosened when the other end of the barge approaches the shore. According to him, one sailor is required to hold fast the rope at the bow-end of the barge and as and when it becomes necessary, he requires to loosen the rope round the bollard. At Berth No. 9 one sailor is required to go to the shore. At the break-waters, if there is one barge, one sailor is required to go to the shore. He was asked whether or not out of 10 occasions, on 9 occasions one barge is required to be tied to the other barge along side. He, however, admits that out of 10 occasions, on 4 occasions only one barge is to be tied singly. The length of these ropes is about 80' to 100'. Then again, he admits that when there are four barges along side his barge, normally a rope cannot be thrown on the shore, but according to him, on such occasions the rope known as 'heaving line' is thrown. He was, however, forced to admit that the rope known as 'heaving line' is not used for tying a barge but only for pulling a rope made of coir. It is, therefore, difficult to see why four sailors would be required for tying barges with rope either to other barges or to the pier. Suggestion was that only sailor can do this duty. But I do not think that is possible and I am inclined to think that two sailors are necessary to perform this duty and occasionally even one sailor would suffice the purpose. In paragraph 24, the witness-A.W.2 admits that the height of the wheel-house room from the engine room is about 5 to 6 metres and if one wants to go to the wheel-house from the engine room, it would take about a minute and half. It is, therefore, obvious that when the engine is started, if at all any person is required to report it to the Master, then it would not take more than 1 or 1½ minutes. But in fact, it appears from the evidence of this witness that when two engines are started, by the very sound of the engines after they are started, the witness who is a Master of the barge is in a position to know that the engines are started. He admits at the end of paragraph 23 at page 21 that he can realise by the sound of the engines that they are started. In paragraph 24, he says that when a barge is to be untied from the barge along its side, what is done is that the rope round the bollard is released and the coils round the bollard of the other barge are unwound. In paragraph 25, he says that the distance between the steering wheel and the place of control is about 2 to 2½ feet. He denies that therefore one person alone can handle the steering wheel and control also. He admits that he has driven his barge without a Sukani. But he denies that on such occasions he alone has handled both the steering wheel and the control. On such occasions he says that the Driver is at the control and he is at the steering wheel. He admits that one person alone can operate the control without the aid of lever. According to him, when a barge is actually on the move and Sukani is absent, the Driver assists him on the control and the Oilman is in the engine-room in place of the Driver. In the absence of Driver, Oilman can control the engine-room. When a barge is on the move, Master, Driver or Sukani all are not in the wheel-house at one and the same time. According to him, the rear portion of the barge can be best viewed from the wheel-house, but the portion where ballast tank is fitted cannot be seen from the wheel-house. At one stage of his cross-examination, he stated that when a barge is taken out at the break-water, it is necessary to see if there is any water inside the ballast tank. But at the very next moment, he was forced to admit that the ballast tank is checked before the engines are started

and after the engines are started, he admits, it is not necessary to see whether there is water or not in the ballast tank. In paragraph 26 at page 23, when he was further cross-examined on the question of tying of the barges with ropes to other barges, he admitted that when an owner of barges is required to wait for unloading at Berth No. 9, his barges are required to wait at Berth No. 9 for the purpose of unloading. On such occasions, he brings his loaded barges at Berth No. 9 for being tied one after another at the break-water. He further admits that each owner of barges is given specified time for the purpose of unloading his barges at Berth No. 9 and during that specified time, the owner brings his barges at the break-water and they are tied one after another. He, however, wants us to believe that it is only 2 times out of 10 that the barges of one and the same owner can be tied together one after another at the break-water. Regarding lifting of tyres and keeping them, these tyres are tied on both the sides of the barge in order that the fenders fixed on both the sides of the barge are not damaged. The purpose of taking up these tyres and placing them on the deck is to avoid the tyres being lost when a barge is loaded and the tyres come in contact with water. He admits that when a barge leaves the harbour and proceeds to a loading point, it is not necessary to take these tyres on the deck and the statement made by him in paragraph 3 at page 4 is incorrect. Similarly, he admits that the statement made by him in paragraph 5 at page 5 regarding lowering of the tyres at the loading point is also incorrect. I have already pointed out with reference to my notes of inspection that these tyres can be handled by one sailor and can be kept on the deck by simply swinging them up on the deck because these tyres are tied with a wire, one end being tied to the tyre and the other end to a hook, the length of the wire being about 1½ to 2 feet.

57. In paragraph 4 at page 4, the witness-A. W. 2 refers to the duty of slowing down the speed of a barge when another barge comes across from front side or a ferry boat crosses in front or any canoe crosses in front. He also referred to his own experience. In paragraph 20 he says that he worked for 4 years as a Sukani from 1966 to 1970 and in 1970 he obtained a Master's licence. However, at present it is necessary to obtain training for getting a Master's licence which was not necessary when he obtained his licence in 1970. He was not required to appear for any test before obtaining a Master's licence. As regards slowing down the speed, in paragraph 28 in his cross-examination at page 25, he admits that at the time of slowing down the speed when any obstruction is seen in the way, all that is required to be done is to bring the lever down to the slow point. If there is an emergency and the barge is required to be stopped suddenly, then the lever is first brought to the neutral position and then to the slow stern and then to the full stern. In an emergency this takes about half a minute. Now, it is not necessary even for this purpose to have one man at the wheel and another at the control. The witness admits in his cross-examination that the distance between the wheel and the control is about 2 feet. In my notes of local inspection at Exhibit 122, I have noted in paragraph 1 that the distance between the wheel and the control is 26 inches, and both are fitted in such a way that both of them can be handled by one man. According to Captain Mangat who was present at the time of inspection on behalf of the Bargemen's Association, a difficulty arises when a barge is to be taken along side when there are other barges because then the Master is required to judge the safety or otherwise of the approach and for that purpose he has to go 6 feet away outside the wheel-house to watch the position and to find out whether or not it is safe to proceed in a particular direction. This can be done either by Sukani or by Sailor having experience. So, assuming what Mangat said at the time of inspection is correct, though he was not put into the box at the time of recording evidence, even according to him this can be done by an experienced sailor. If that is so, and if the wheel and the controls can be handled by one man, it is not necessary that there should be three persons for this job, one at the wheel, one at the controls and another for going out of the wheel-house and watching whether there is any obstruction in the way and in which direction the barge should proceed. In fact, in paragraph 25, the witness-A. W. 2 admits that Master can drive a barge without Sukani.

58. In paragraph 5, the witness-A. W. 2 refers to the duty of lowering tyres and also to the duty of tying of the barges. According to him, when he reaches a loading point, he asks the Sailors to take down the tyres which are placed on the board and release them, and this job requires 2 sailors. Regarding the tying of the ropes, he says that two sailors in front and two sailors on the aft are required to throw the ropes on the shore where there are already men other than from the staff of the barge. I have already said while referring to paragraph 27 of the evidence of this witness that

the tyres can be handled by one sailor. Similarly, I have also referred to the duty of throwing of the ropes and indicated that even at the loading point the same procedure is followed and more than two sailors are not necessary for this job. The witness further refers to the taking of the Order Book by a sailor to the Plot Office at the loading point and this Order Book is received by the men on the shore who are already there and who tie the ropes thrown by the sailors from the barge. In fact, apart from the nature of the duty and the time which is likely to be taken by, which is insignificant, there is no reason why the Order Book should be taken from the barge by a sailor and hand it over to the men already on the shore. One of the men who are already on the shore to receive the ropes or to do other jobs can take the Order Book from the barge instead of one sailor taking it and handing it over to one of these men.

59. In paragraph 6, the witness refers to the duties of holding wooden beam, tightening and loosening ropes and taking the soundings of water. According to him, the first two duties require two sailors each, while the last one is to be done by Sukani. He further speaks about the duties of pumping out water from ballast tank and spreading of ore in hatch. Pumping out water is done by a Driver and the job of spreading of ore in hatch, according to him, requires four sailors. I have already referred to the duties of holding a beam while discussing the evidence of the witness-A. W. 1. Similarly, tightening and loosening of ropes is also referred to already. Regarding the duty of taking soundings of water, the witness in his cross examination in paragraph 30 at page 26 says that for the last about 9 years he has been operating his barge from Maina and Capxem loading points. He further admits that it is by experience he knows about the levels of water both at Maina and at Capxem loading points. Taking soundings means dropping the hand lead-line into the water, taking it out thereafter and watching the level of the water on the line. It was suggested to him in his cross-examination that it is not necessary for him after 9 years' experience to take these soundings, which suggestion he has of course denied. For taking these soundings, one requires about 2 or 3 minutes according to him and it appears from his further cross-examination that if he goes to the loading point, mostly he takes the soundings, which reply necessarily means that at Maina and Capxem loading points he can ascertain the level of water by experience only and in that case he is not required to take soundings. Regarding pumping out water from ballast tank, in paragraph 23 in his cross-examination at page 20, he admits that about 70 percent of the capacity of the tank is filled by the force of gravity and the balance is filled with the aid of the pump. The capacity of the tank is about 20 tons. There is a pipe line coming from the ballast tank and connected with the outlet in the shell of the hull. There is a valve to this pipe along the water to come in by simply turning it over. He further admits that when the valve is open, water comes inside and the ballast tank is filled with water by gravity upto the level of the sea water. The witness-A. W. 2 in paragraph 5 has told us that the capacity of the pump is one ton per minute, while the ballast tank has the capacity of 20 tons. As regards spreading of ore in the hatch, it becomes necessary only if the loading is faulty and the barge is likely to tilt on one side or actually tilts on one side. I have already pointed out by referring to paragraph 55 of the evidence of the witness-A. W. 1 and paragraph 53 of the same witness that if at the time of loading, a barge tilts, then the barge is made stable by putting ore on the other side. Naturally, therefore, the question of spreading of ore does not arise. Regarding the use of a beam, I have already pointed out that the holding of a beam is required to prevent the tilting and the barge from going towards the pier. On both such occasions, therefore, one sailor alone can do the job.

60. In paragraph 7, the witness-A. W. 2 refers to several duties of sailors such as washing of glass-panes, bringing back Log Book from the Plot Office, untying of ropes, taking of tyres up on the deck, removing ore by shovel from either side of the hatch, removing ore from the deck and shovelling it in the hatch and cleaning the rooms. Regarding the duty of washing of glass-panes, the witness himself admits that one sailor is enough. For bringing Log Book from the Plot Office also, one sailor is sufficient. But here I must notice that Log Book can be handed over to the Master on the barge by any man on the shore and it is not absolutely necessary that the sailor should go on to the shore for bringing the Log Book. Regarding the duties of untying of ropes and taking tyres up on the deck, I have already made my comments above. Similarly, I have also referred above to the duty of removing ore from the deck or shovelling it in the hatch. It is, however, necessary to point out here that the present witness in his cross-examination in paragraph 31 at page 27 admits that the Company does not supply shovels. Obvi-

ously, therefore, shovelling of ore in the hatch is not a routine duty and if, according to the witness, whenever ore is to be shovelled in the hatch, shovels are required to be borrowed from others. This means that if at all shovelling becomes necessary, it is very rare. Moreover, for this job, even assuming it is routine work, there is no reason why two sailors are necessary. So far as the duty of cleaning the rooms is concerned, it is not absolutely necessary that two sailors should perform this job. Even one can do it.

61. In paragraph 8, the witness-A.W.2 says that a barge is required to be anchored whenever there is fog, also at the Borim bridge, at low tide and even in rough weather. Similarly, it is required to be anchored when passenger steamer is at Panaji jetty. We are asked to believe that for dropping an anchor two sailors are required, and for heaving it up four sailors are necessary. Whenever anchor is to be heaved up, Sukani remains at board. The duty of Sukani at the board on such occasions is to give signals to the Master by waving his hand indicating the position of the anchor chain, while the Master remains at the wheel and moves the barge forward in order to remove the strain from the chain of the anchor. According to the witness examined by the barge-owners at B.W.1, in paragraph 9 he says that force required for heaving up an anchor is 8 kilograms and 4 kilograms for lifting anchors of 500 tons, 1000 tons and 750 tons barges respectively. The maximum force applied at the handle is 12 kilograms and when shared by two persons, the force to be applied by each of the sailors is 6 kilograms. This witness has also filed in the record his calculations at Exhibit 107. He was extensively cross-examined on his statement regarding the quantity of force required for heaving up an anchor. However, when I visited a barge of 500 metric tons capacity, I actually found that for dropping of anchor and for heaving it up, two sailors are necessary. In fact, I have tried my hands for some time at the handles and I have seen that one sailor on each of the two sides of the winch can easily heave up the anchor.

62. In paragraph 9, the witness-A.W.2 refers to the procedure followed at the time of tying one barge to another for throwing of ropes on other barge and for releasing the ropes after they are tied, particularly when a barge reaches the harbour. According to him, 4 Sailors are required for this job. But I have already referred to the evidence of this witness in cross-examination in paragraph 21 at page 16 and shown how the barges are tied to each other and how many occasions there could be when one barge is tied to the other. This is of course with reference to the tying of barges at the harbour or break-water. As regards throwing of ropes at the loading points also, the evidence is already discussed by me above and in my opinion, whether the tying of one barge to another with ropes is in the harbour or at a loading point, in either case not more than two sailors would be necessary.

63. In paragraph 11, the witness-A.W.2 also refers to the tying of a barge at break-waters and says that four sailors are required to do this job. But it is not necessary to repeat my comments here again in view of the fact that I have in detail discussed this job above. Another job referred to by the witness in this paragraph is that after completion of unloading at transhipper, cleaning of the barge is necessary which is done by four sailors. Then Customs clearance requires one sailor. Cooking every day requires one sailor, and one sailor is necessary for going to the market and making necessary purchases. Now, in my opinion, more than two sailors are not necessary to clean a barge whether it is cleaned at transhipper or at the loading point or at break-waters. One sailor is of course necessary for obtaining Customs clearance. But this job also can be entrusted to a man on the shore. Cooking and marketing surely would require one sailor, particularly because it is in evidence that a sailor requires 2 to 3 hours in the morning and 2 to 3 hours in the evening for preparing the meals for the barge crew.

64. In paragraph 13, the witness-A.W.2 refers to the duty of a sailor as a watchman sitting on the board when the barge is on the move. He wants us to believe that this job is done by one sailor by rotation. Now, I have already referred to the cross-examination of the witness-A.W.1 in paragraph 60 where he says that a Master has a clear view from the wheel-house, the distance being only 38 metres, and the barge can be stopped in emergency within a distance of half of its length. According to the present witness-A.W.2, in paragraph 28 he says that a barge can be halted in case of emergency within a distance of maximum four times in length. Apart from it, in my opinion, the contention of the Bargemen's Association that one sailor

is exclusively required by rotation for a job of keeping a watch sitting on the board, is an attempt to show that the present strength of the sailors being 5 in number is absolutely necessary. I am aware that my own personal knowledge gathered after watching several barges moving in Mandovi river cannot be used as a piece of evidence, though I have not seen a single loaded barge or an empty barge moving in the river Mandovi having a sailor sitting on the board and keeping a watch. I can, therefore, only say that I am not prepared to accept the evidence of the witness on this point because the material on record does not show that it is absolutely necessary to keep a watchman on the board when a barge is moving in the river either Mandovi or Zuari.

65. Lastly, in paragraph 14, reference is made by the witness to some other duties such as starting engine for charging battery, pumping of water, anchoring a barge, removing branches of trees flown with the current of water in rainy-season and restoring barge to its original position in Monsoon when it is likely to move one way or the other along with the current of water. Now, I have already pointed out that there is hardly any staff on a barge in Monsoon. Most of the staff is on leave and the present witness in paragraph 38 also says that Monsoon requirements can be looked after by any one of the members of the crew such as Oilman, Sukani or Sailor whoever is present. In fact, the witness in paragraph 64 says that about 10 days before a barge gets ready for plying, only Master, Driver and 3 Sailors remain present at the barge.

66. The oral evidence, therefore, so far discussed reveals that the duties of Sailors at loading points are (1) tying barges to the pier, (2) taking over books to Plot Offices and back, (3) holding wooden beams, (4) tightening or loosening ropes when barges move forward or aft, and (5) untying ropes. The duties on voyage are (1) taking up tyres, (2) washing glass-panes, (3) spraying water on cargo, (4) washing of deck, (5) shovelling of ore from deck inside the hatch if it is necessary, (6) cleaning all rooms, (7) duties of watchman on a barge, (8) tying barges at break-waters, (9) Customs clearance, (10) tying of a barge at Berth No. 9 or at the place of transhipper, (11) untying barge either at Berth No. 9 or at break-waters, (12) shifting of ore inside the hatch, (13) repairing of ropes, (14), lighting of lanterns if the barge is at the harbour, and (15) dropping and heaving up an anchor whenever necessary. For most of these duties, time required is from 5 minutes to 30 minutes. The actual loading time at a loading point is generally 1 hour to 1½ hour and most of the duties at a loading point are to be performed within this duration of time. Then when beam is held to avoid a barge from moving towards the jetty, there is no question of moving the barge forward and aft. Likewise, if moving of a barge is required to be done with tide, then only one sailor can perform the job, inasmuch as on such occasions the principal job is to slacken ropes. Similarly, most of the duties to be performed by Sailors during voyage also would not require more than 10 minutes to 30 minutes. Regarding man-power required for doing any of those duties during voyage would be, considering the nature of the duties, one Sailor, and for certain duties only two Sailors. Regarding watchman's duties, I have already pointed out that contention has no foundation in fact. Only the job of heaving up an anchor would require two Sailors and one Sailor cannot perform the job. Regarding dropping of the anchor, that can be done by one Sailor, inasmuch as all that is required to be done is releasing the chain and within a few seconds the anchor is at the bottom of the river. Moreover, dropping of an anchor and consequently heaving it up is perhaps necessary in Zuari river at Borim bridge where rules prohibit plying below the bridge at high tide. Otherwise, evidence does not show that it is a regular operation on number of occasions every day. Similarly, shovelling of ore is also another contention which cannot be accepted, inasmuch as the witness-A.W.2 has admitted, as I have already pointed out, that they are not provided with shovels by their Company, nor the witness-A.W.1 says that they are provided with shovels by their employers. For the jobs like tying and untying, the contention is that four Sailors are absolutely necessary. But here again, I have pointed out while commenting on the evidence placed before me that two Sailors would be enough, provided of course, whether at the loading point or at the harbour, there are separate men for doing the part of the job on the shore.

67. Turning to the duties of Driver/Oilman, it is not disputed before me that the duties of Driver or of Oilman are performed by Oilman or Driver as the case may be. Now, these duties are (1) starting engines 2 or 3 times

during voyage, (2) report to the Master that engines have started, (3) filling up Log-Book, (4) checking pressures and temperatures, (5) to fill service tanks with diesel in cases where barges are fitted with them, (6) operating generators, compressors and water-pumps, (7) cleaning sea filters and generator filters, (8) to change engine oil, (9) replacement of broken pipes, (10) greasing anchor winch nipples, (11) greasing rudder chain, (12) cleaning wheels and greasing nipples, (13) replacement of glands, (14) keeping a watch in the engine-room, (15) cleaning engines, (16) cleaning engine-room, and (17) cleaning engine heads. In Monsoon, additional duties are (1) supervision of repairs in the workshop, (2) taking trial after survey is over, (3) cleaning engine and (4) operating pump for pumping out rain water. Here again, none of these duties requires more than 5 to 45 minutes except changing of engine oil, cleaning engine heads and supervision of repair work in the workshop during the period of survey. Now, some of these duties are required to be performed once in one voyage. These are filling up a Log-Book and putting diesel in service tank, while others like greasing of anchor winch nipples are required to be done once or twice in a week, cleaning of sea filters twice or thrice a week, and that of generator filters once in 15 or 17 days. Cleaning of engine-room is required to be done once in 15 days, while greasing of rudder chain and cleaning wheel or greasing nipples is done once in a month. It is no doubt that the evidence shows that changing of engine oil takes about 6 to 8 hours, but this is required to be done after every 50 to 60 trips. Replacement of broken pipes is occasional, inasmuch as replacement is required to be made only when the pipe bursts. Replacement of glands is done once in 2 or 3 months, while cleaning of engine heads once after every 50 to 60 trips. The duties in Monsoon, particularly those to be done at the time of surveys, are required to be performed once in a year.

68. Once again, I may refer to the oral evidence of the witness-A.W.2 Shri Tari. He says in paragraph 3 at page 3 that after the engines are started, sometimes the Driver or the Oilman checks the engines. In paragraph 25 at page 24, he admits that he has driven a barge without a Sukani. He also says that in the absence of a Driver, an Oilman can control the engine-room. When a barge is on the move, Master, Driver and Sukani all are not in the Wheel-House at one and the same time. Then in paragraph 35 at page 31, he admits that even a Sailor can do the work which is required to be done by a Sukani by remaining at the bow at the time of heaving up an anchor. In paragraph 38 at page 34, he tells us that during Monsoon when barges of his Company are tied at the loading points, his Company encourages the crew to proceed on leave if they have such leave to their credit. The evidence of the witness-A.W.1 also shows that the duties performed by a Driver can also be performed by an Oilman.

69. I have already pointed out that there is very little documentary evidence on this point placed on record in this proceeding. Exhibit 102 (1 to 10 sheets) shows that generally in each trip, non-operating time is more than twice the operating time. Sheet No. 1 shows that during the course of 10 trips, the total non-operating time was 179.45 hours and operating time was 78.15 hours. Similarly, in the second sheet, these timings are shown as 144.50 hours as against 96.40 hours; in the third sheet 172.50 and 78.55 hours; in the fourth sheet 231.25 and 72.25 hours; in the fifth sheet 85.20 and 83.40 hours; in the sixth sheet 59.35 and 30.35 hours; and in the seventh sheet, though the total is not given in this sheet, the individual figures of each trip confirms the same ratio. Similar is the case in the rest of the sheets. I have already shown that most of the duties are required to be performed by Master, Driver, Oilman and Sailors during the operating period. Exhibit 75 (1 to 8) gives us the account of the duties performed by Master in the absence of Sukani, Sukani in the absence of Master, Driver in the absence of Oilman also known as Assistant Driver, and Oilman in the absence of Driver, and also the duties performed by Sailors in the absence of 1 Sailor, 2 Sailors, 3 Sailors, 4 Sailors and 5 Sailors. The analysis of the contents of these sheets would show that in the year 1980 out of 2695 working hours, during 1084 hours Sukani was absent, during 1024 hours one Sailor was absent, during 1377 hours two Sailors were absent, during 25 hours three Sailors were absent and during 337 hours five Sailors were absent. In 1981, the same figures are 1860, 656, 874, 749, 34 and 213; in 1982—1620, 465, 847, 554, 20 and 202; and in 1983—2077, 268, 862, 137, 3 and 1082 respectively. That shows how the work which is at present being done by Driver and Oilman can be performed by Driver alone, or Oilman alone, and that performed by

five Sailors can be done by even two Sailors. Further, admittedly under the Agreement, Exhibit 80, clause (13), short-hand money is being paid only to crew members from 1st September 1964 on the following scale:—

- "(i) Master, if Sukani is absent—Rs. 5/- per trip.
- (ii) Sukani, if Master is absent—Rs. 8/- per trip.
- (iii) Driver, if Oilman is absent—Rs. 5/- per trip.
- (iv) Oilman, if Driver is absent—Rs. 7/- per trip."

It is significant to note that this Agreement does not provide for any shorthand money being paid to Sailors because already there are more than sufficient number of Sailors and considering that strength, the parties did not think it necessary to provide for shorthand money when any of the Sailors remains absent.

70. Considering, therefore, this entire evidence, I have no doubt in my mind that if the present system is changed, then one Master/Sukani, one Driver/Oilman and two Sailors would be the minimum absolute requirement of the crew for one barge of less than 1000 metric tons and for these barges with carrying capacity of 1000 metric tons in addition to the manning strength of one Master/Sukani, one Driver/Oilman and two Sailors, one Oilman and one Sailor would be additional requirement. I am aware that under the I. V. Act, 1917, Master and Driver must necessarily be holding certificates for their respective jobs and in fact, they are the only statutory manning strength of a barge. The Act, does not provide for either Sukani or Oilman or the minimum strength of Sailors for any barge. In fact, the evidence shows that even though Sukani and Oilman who are actually working on these barges do not hold any certificate, still admittedly Sukani works in the absence of Master, though the latter does not hold any certificate, and similarly Oilman works in the absence of Driver, though he also does not hold any certificate. In fact, I am told on behalf of the barge-owners that this is the maritime practice actually in vogue in the territory of Goa for a number of years. I may mention here that after the arguments were over, I had informal discussions with the parties and their Advocates on both the sides about various schemes, one of which was placed before me by the barge-owners while the other by the Bargemen's Association. During the course of this informal discussions, I was shown the correspondence between the barge-owners and the Captain of the Ports on this point and I was told with reference to this correspondence that the Captain of the Ports in his reply to the letter written by the barge-owners has said in so many words that his department in principle will have no objection to according sanction to the type of request made by the Association subject to Government approval. The request was that if the manning strength of a barge is reduced to only Master and Driver, then Sukani who normally assists the Master and Oilman who also assists the Driver should be allowed to work as Master and Driver respectively. He has also observed in this letter that it was pointed out to him that the dispensation under the rules is being given to Sukanis and Oilmen to act as Drivers and Masters as and when the need arises, and in his reply he does not contradict that position explained to him by the barge-owners. That shows that at present there is a maritime practice, according to which in the absence of Master, Sukani acts as Master, while in the absence of Driver, Oilman acts as Driver. The fact, however, remains that the present manning strength can, without any inconvenience to either of the parties, be reduced to one Master, one Driver and two Sailors.

71. That brings us to the next issue regarding what could be a suitable scheme in view of the facts and circumstances in the present dispute and particularly what should be the other conditions, apart from the regulated 8 hours working and the reduction in manning strength, required to be complied with for implementing the scheme.

72. I have already pointed out that after the arguments were over, efforts were made to ascertain whether there could be any agreed scheme as envisaged in the Agreement and both the parties—the bargeowners and the Bargemen's Association—placed before me one scheme each for consideration. Each of these two schemes was vehemently objected to by the other party. I myself also was not satisfied with either of these schemes. It would be worthwhile to refer to these schemes in brief and objections raised by the other side for rejecting it.

73. The scheme put forward on behalf of the barge-owners is based on 24 hours presence of the barge-crew on board the barge with 8 hours rest on the barge provided to every member of the crew. The scheme is not based on completion

of a trip. Necessarily, therefore, even if a barge does not complete a trip within 24 hours, each barge-crew would get clear 8 hours rest in 24 hours. The scheme, however, does not provide for overtime for work done by the barge-crew in addition to 8 hours work every day, though I have already pointed out that there is an Agreement between the parties that in addition to 8 hours work, they should be paid overtime at the rate of double the wage per hour for the additional hours' work. The scheme further provides that when Master is being given complete rest on board the barge, first for four hours and then again for four hours, in all 8 hours during the period of 24 hours, Sukani is to take charge of the barge in the absence of Master. Likewise, whenever Driver is taking rest, during his absence Oilman is to take charge of the engine room. Similarly, in the absence of each of the sets of two Sailors, the other set of two Sailors is to do the work. In other words, when one set of two Sailors is on duty, the other set of two Sailors is to take rest. The scheme does not specify what work is to be done by the fifth Sailor and when he is to take rest. It should be noted that the scheme does not contemplate any reduction in the manning strength. Now, this scheme was objected to on behalf of the Bargemen's Association on several points. The first is that under the I.V. Act, 1917, and the rules made thereunder, Sukani and Oilman could not be permitted to work as Master and Driver respectively without holding proper certificates. I have already referred to this aspect and it is enough to mention here that though the Captain of the Ports may not have any objection, he would not permit Sukani and Oilman to do the duties of Master and Driver respectively unless the Government have no objection, though it appears that the Government may also frame rules enabling Sukani and Oilman to perform the duties of Master and Driver respectively. The fact, however, remains that apart from the maritime practice which allowed the Sukani to act as a Master in the absence of the latter and the Oilman to act as Driver in the absence of the Driver, it does not show that therefore without certificates the Master and the Driver could be allowed to perform their respective duties. It is one thing to say that Sukani and Oilman are allowed to perform the duties of Master and Driver in the latter's absence whenever the occasion arises and it is altogether a different thing to say that the Sukani and the Oilman can be put in-charge of the barge and the engine-room regularly every day, though they do not hold the appropriate certificates for the purpose required under the law. The second objection is that the scales of pay of Master and Sukani are different from those of Driver and Oilman and, therefore, they cannot be asked to perform the duties of Driver. In this connection, a reference to page 3 of Exhibit 121 would show that whereas the scale of Master and Driver is the same, that of Oilman and Sukani, though the same, is different from that of Master and Driver. The minimum and maximum of the scale of Master and Driver are Rs. 740/- and Rs. 1400/-, while that of Oilman and Sukani are Rs. 475/- and Rs. 835/- respectively. Then again, though the crew is allowed to have rest for 8 hours on the barge, truly this so-called rest cannot be considered to be rest in the real sense of that word because there is no knowing when they would be called upon to work and on such occasions they would not be able to refuse to do any work during the period of their rest. In this connection, my attention is drawn to the decision of the Supreme Court in *Workmen of Bombay Port Trust v. The Trustees of Port of Bombay*, (1965) 1 L.L.J. 709, in which the Supreme Court has observed thus:—

"The normal working day under section 13 of the Minimum Wages Act includes (a) hours of actual duty and (b) one or more specified intervals. There may be one interval of rest or there may be more intervals, but whatever their number, they must be specified. By interval under section 13 is obviously meant interval of rest and this is clear from Rule 24(2). There is no definition of interval either in the Act or in the Rules, but the provisions of section 13(2)(c) read with section 13(3) give an indication of what is meant by interval or rest. It means a break in the work during which a workman, though present on duty, is not called upon to display either physical activity or sustain attention. But it is not a period of mere inaction because there is no work for him. If it is the latter, it is counted as actual work period; if it is the former, it is counted as period of rest, provided the period is specified before-hand and the workman is neither called upon to work nor expected to work".

In fact, the principal demand of the bargemen since about 1964, as I have already indicated, has been that they want 8 hours regulated work and rest at home and not rest on the barge. The bargemen, therefore, have contended before me that so long as they are not granted 12 hours rest at

home, they are not prepared to accept any scheme which does not give them 12 hours rest at home. Further, the bargemen have also pointed out that there is no suitable arrangement at present made on a barge for the crew to take rest. This is of course half truth, inasmuch as every barge has an arrangement for the crew to sleep; but there is some truth in what the bargemen contend that for taking rest during day or during night time, there is no suitable arrangement made on a barge at present. The bargemen have also pointed out that the scheme does not provide for somebody to cook for the crew and also to have rest. Here, however, the barge-owners have pointed out that the 5th Sailor can perform the duties of a cook. That may be so. But the question is that according to the evidence on record, cooking is required to be done 2 or 3 hours in the morning and 2 or 3 hours in the evening. Are we to understand that therefore during 12 hours the 5th Sailor will have duty for 4 to 6 hours out of 24 hours and he will have rest for 18 to 20 hours; if not, is it to be treated as a stand-by or, if so, for how many hours? If he is also expected to do marketing for making purchases of food-stuff, then also that does not solve the problem. Then again, according to the bargemen, the complement of four members—one Master, one Driver and two Sailors—is entirely impracticable; but for the reasons I have already discussed, I do not see any difficulty in reducing the present manning strength to four members, namely, Master, Driver and two Sailors. However, as I have already pointed out, the fundamental objection of the bargemen is that because the scheme does not provide for rest off the barge, it is entirely unacceptable to them.

74. Turning to the scheme put forward by the Bargemen's Association, it is entirely unworkable and is not based on facts and circumstances which have come on the record. The scheme is based on the present strength of the barge-crew being one Master, one Sukani, one Driver, one Oilman and five Sailors. The crew is to be given minimum 12 hours rest at the end of each trip. For this purpose, the bargemen have taken for granted that normally each round trip takes about 18 hours. If, however, this period exceeds, then the rest of 12 hours should also be increased at the rate of one hour for every two hours in excess of 18 hours required for a round trip. To illustrate, if the round trip has taken 24 hours, the rest period would be 15 hours, that is to say, 3 additional hours for additional 6 hours work. The scheme also provides for transport to take the barge-crew to their respective homes immediately after they have disembarked from their respective barges, and to bring them to the loading points from their respective homes for embarking again for duty. In actual trip, time under the trip is to commence when the barge-crew actually board the barge and make it ready with a view to position it for receiving the cargo at the loading point and the trip would end when the empty barge comes to the specified spot in accordance with the instructions of the barge-owners. According to the bargemen, this scheme would not affect the quantity of iron ore exported every year, nor it would reduce the number of trips made by each barge because their arithmetical calculations show that if a round trip takes 18 hours, then there would be 20 trips in a month, and that being so, the annual export would be 16 million tons a year which, according to them, is much more than the total ore shipped in the best possible year of export. This scheme is also objected to by the barge-owners with the same vehemence. In the first place, they contend that the very basis of the scheme that every trip would ordinarily be completed within 18 hours, is not a fact but a fiction. I think there is substance in this contention because I have already pointed out that in the first place, it is difficult to fix the number of hours required for each trip even in fair season, much less in Monsoon. The record shows that on an average each trip takes about 20 to 24 hours, though there are occasions when it takes even more than 24 hours, sometimes upto 48 hours, and occasionally a trip is completed within about 10 or 12 hours. But the number of trips requiring less than 10 hours and number of trips requiring more than 24 hours certainly do not balance against each other. Secondly, I have already pointed out that though the carrying capacity of a barge is 200, 250, 300, 350, 400, 500, 750 or 1000 metric tons, that capacity is only a paper capacity, inasmuch as the barges are not allowed to carry their full tonnage, but each barge must necessarily transport 50 metric tons less than its paper capacity. Apart from it, it is incorrect to say that there would be 20 trips in a month. On an average, as I have already indicated, the number of trips would be about 15 per month. Then the provision for transport is also unworkable because most of the entire barge-crew in Goa resides in remote villages. If a transport is called upon to go to the house of each barge-crew for dropping him and again while returning to a load-

ing point or to any other specified spot if the transport is again to go to the house of each member of the barge-crew, it would be impossible either to take the bargemen within the specified time to their respective homes or to bring them to the loading point or any other specified spots within the specified time. To drop them at a particular spot or to collect them from a particular spot would be impracticable even if there are 5 or 6 transport vehicles. The scheme also contemplates quick communication from each of the loading points to the harbour and back. But in the present circumstances, that is to say, considering the number of telephonic connections available in the territory of Goa and the conditions of communications, it would be futile to call upon the barge-owners to make arrangements for quick communication. Apart, therefore, from the capital cost involved in the scheme, the barge-owners have rejected the scheme of the Bargemen's Association.

75. In addition to the two schemes referred to above, three more schemes were suggested and discussed at the instance of the Arbitrator himself. One of these schemes is a shift system, each shift being for 12 hours from 7.30 a. m. to 7.30 p. m. and the night shift being also of 12 hours from 7.30 p. m. to 7.30 a. m. on the next day. This shift system was also to be based on regulated 8 hours duty and in addition to 8 hours, the remaining 4 hours duty was to attract overtime at the rate of double the wage (Basic + FDA + VDA). Each shift was to be manned by one Master, one Driver and two Sailors. The crew was to be entitled to 12 hours rest at the end of each shift. However, on account of uncertainties about the time and place when and where at a given time a barge would be at the time of the expiry of 12 hours shift, the scheme based on shift system was found unworkable. Besides, for disembarking the crew on the expiry of 12 hours shift, the barge was required to be diverted at a suitable spot on the bank of the river either Zuari or Mandovi, which involved further delay for completing the trip, apart from the difficulty for picking up the crew for the next shift. This delay was likely to affect the number of trips in a month and, therefore, ultimately the quantity to be exported. In fact, during the course of discussions, it was noticed that any shift system would be unworkable in view of what I have already stated above while discussing the entire evidence on the record. The idea of any scheme, therefore, based on shift system had to be given up.

76. Another scheme which was referred to during the course of the informal discussions was that the entire crew of the fleet of barges of all the employers should be divided into two groups category-wise and one group should be called at the loading points, while the other at the harbour, the time for reporting for duty for each of the two groups being 7.30 a. m. both at the loading points and also at the harbour. Here also, the scheme was to be based on regulated 8 hours work and 4 hours overtime. The duty of the crew attending at the loading point included loading at a loading point and voyage upto the discharge point, while the duty of the crew called at the harbour was attendance at the discharge point which included unloading and voyage back to the loading point. Presence on a barge in excess of 12 hours was to attract compensation at a fixed rate. If a barge reached earlier or late at the discharging point, whether it was Berth No. 9 or Berth No. 6 or transhipper, and the crew at the harbour point was not available, then in that case the crew who has boarded at the loading point was also responsible for performing the duties at the discharging point. The same position was to be regarding the crew which boarded at the harbour for voyage back to the loading point in regard to the duties at the loading point in the absence of availability of the crew at the loading point. But this scheme was also found beset with difficulties not only in regard to embarking and disembarking either at the loading point or at the harbour, but also on account of the uncertainties involved regarding completion of round trips of barges. This scheme, therefore, also was found to be unworkable.

77. The third scheme which was based on the present strength of the crew for each barge, was also based on the regulated 8 hours duty, 4 hours overtime and compensation at a fixed rate as board allowance for being on the barge in excess of 12 hours. But regarding 12 hours rest to be given to the crew, the scheme contemplated no reduction in the manning strength. The result was that according to the barge-owners, there could be heavy financial burden on them in view of the fact that if they were not to engage additional equal number of crew for each barge, the barges could remain idle affecting the annual export of iron ore, ultimately resulting into the collapse of the whole industry. If, on the other hand, in order to avoid any reduction in the quantity of iron ore annually exported, they were to engage

additional equal staff for each barge, it would be impossible for them to compete in the world market, particularly because the additional cost that they would be likely to incur could not be transferred to the buyer in view of the keen competition in the world market. This scheme, therefore, also had to be abandoned.

78. Considering, therefore, the entire material on the record, the arguments on both the sides and the informal discussions over some schemes with the parties, I have come to the conclusion that in view of the facts and circumstances attending the present industry, the geographical conditions obtained in the entire territory of Goa and the economic conditions in the territory, I am inclined to think that there could not be a scheme which could be said to be perfect and which would not require the parties on both the sides to face some difficulties or the other if it is implemented. In such a situation, the only way out is to minimise the difficulties in preparing a scheme and to make an attempt to offer maximum reasonable benefits to the bargemen and as far as possible, less additional financial burden to the barge-owners without adversely affecting the industry as a whole. I have, therefore, prepared the following Scheme which, I am sure, is definitely workable if the parties on both the sides, with the spirit of welfare for each other and bearing in mind the national interest involved, co-operate for successful implementation of it.

SCHEME

(a) The complement of barge-crew for each barge shall be 1 Master, 1 Driver and 2 Sailors. So far as the barges with capacity of 1000 metric tons are concerned, there shall be one additional Sailor and one Oilman in addition to the complement of 1 Master, 1 Driver and 2 Sailors. The complement for such barges, therefore, would be 1 Master, 1 Driver, 1 Oilman and 3 Sailors.

(b) No member of the barge-crew (1 Master, 1 Driver and 2 Sailors) shall be called upon to perform any on-shore duty connected with a barge, for which on-shore duties the barge-owners shall make their separate arrangements.

(c) The bargemen shall be entitled to 12 hours rest off the barge on the land at the end of each round trip from the loading point to the harbour and back.

(d) During the course of each round trip, the bargemen shall perform regulated 8 hours' duty and for duty in excess of 8 regulated hours, they shall be entitled to 4 hours' over-time at the rate of double the wage, viz. Basic + FDA + VDA, and board compensation at the rate of 50 per cent for the first 6 hours, 40 per cent for the next 6 hours, and 30 per cent for the remaining hours.

(e) If a bargeman voluntarily offers to work on a barge during the period of 12 (twelve) hours for rest and does not want to take rest, his employer may accept his services, provided he is paid 50 per cent of his day's wage including FDA and VDA as compensation which shall be treated as wage for the purposes of gratuity, Provident Fund, bonus and leave benefits.

(f) If the period of 12 hours of rest at the end of a round trip coincides partly or wholly with a weekly holiday or any other holiday, a bargeman shall not be entitled to rest at any other time or to any compensatory holiday for the loss of rest.

(g) After the rest of 12 hours, the bargecrew shall be called for duty on the expiry of 12 hours' period of rest at specified hour and at a specified loading point, intimation of which shall be given to them in advance as far as possible at the time when they disembark from their barge at a loading point for rest.

(h) During the period of 12 hours rest to one set and also whenever required, the services of the other set of the barge-crew, the complement of which is fixed at 1 Master, 1 Driver and 2 Sailors, shall be utilised for round trips on the same or another barge, so that no barge remains idle.

(i) For the purposes of utilising the services of the other set of the barge-crew, viz. 1 Sukani, 1 Oilman and 2 Sailors, if there is no objection from the authorities concerned, the present maritime practice may be followed and Sukani should be put in-charge of a barge and Oilman in-charge of engine-room in place of Master and Driver respectively. In such an event, they shall be paid each monthly allowance at 20 per cent of the basic pay of the Master and Driver respectively, which allowance shall be treated as wage for all purposes.

(j) If, however, there is any objection to such a practice being followed regularly every day from the authorities

concerned, those Sukanis and Oilman who are duly qualified and eligible shall be promoted to the posts of Master and Driver respectively and shall be paid accordingly.

(k) If, however, the barge-owners find that it is not possible to promote all or any Sukanis and Oilmen in their services to the posts of Masters and Drivers respectively, then as many as those who could be promoted to the posts of Masters and Drivers respectively should be so promoted and be paid accordingly. For the rest of the posts of Masters and Drivers, fresh recruitment should be made to their posts.

(l) There shall be leave reserves according to the requirements for the posts of Masters, Drivers and Sailors, so that the crew being reduced to the complement of 1 Master, 1 Driver and 2 Sailors, in the absence of any of them at any time, his or their vacancy or vacancies, whether casual or otherwise, shall be filled in, so that the barge does not remain idle for want of staff.

(m) Compensation to be paid in accordance with clause (d) above shall be calculated on the Basic pay + FDA + VDA. It shall be payable on the following conditions:—

(i) It shall be payable for the days on which the crew is on actual duty on their barge;

(ii) No fixed dearness allowance or variable dearness allowance would be admissible on this compensation. It shall, however, be counted for gratuity, provident fund, leave benefits and bonus.

(n) Additional compensation payable under the Agreement, Exhibit 85, clause (5), shall cease to become payable with effect from the date this Scheme comes into force.

(o) Compensatory offs agreed to between the parties under the Agreement, Exhibit 81, clause (10), shall cease to be available to the bargemen with effect from the date this Scheme comes into force.

(p) The system of payment of shorthand money is hereby abolished with effect from the date this Scheme comes into force.

(q) The barge-owners shall, in order to minimise idle hours of the crew, if any, after they return from their 12 hours' rest to a loading point, make the necessary planning required for the purpose, so that as far as possible, no member of the crew remains idle at a loading point after he returns from his rest.

(r) For the crew discharged for 12 hours' rest, after completion of a round trip, between 9 p.m. and 4 a.m., some temporary arrangements shall be made at loading points for their rest if no transport is available during these hours for returning home and the crew desires to take rest only at the loading points.

(s) The Scheme shall be tried for a period of about six months from 4th December 1984 to the end of May 1985 during the remaining fair season.

(t) The difficulties, if any, directly arising out of the implementation of this new Scheme such as financial

burden, manning strength, benefits and facilities withdrawn or discontinued, should be discussed, considered and settled between the parties. If not so settled, they shall be referred to any independent forum for decision.

(u) The parties on both the sides, particularly the employers, shall maintain correct record of the working of the entire new Scheme and in addition they shall maintain true, faithful and complete accounts of ore industry as a whole separately and of the working of the new Scheme during the trial period.

(v) The parties on both the sides shall be at liberty to extend the period of trial for another short period not exceeding six months by mutual agreement only and not otherwise.

(w) Any agreement, provision in agreement, practice or condition of service between the parties, which is in force today and which is not abolished, cancelled, withdrawn or effected, either by express terms of the present Scheme or by necessary implication thereof, shall continue to remain in force during the period the New Scheme remains in force.

(x) The excess of the barge-crew, if any, remaining after the two sets of complements are raised, shall, as far as possible, be absorbed in leave reserves and shore establishment.

79. That takes me to the last issue as to from which date the new Scheme should be introduced. While considering this issue, it is necessary to remember that the present pattern of working of the bargemen has been in force for the last about more than 25 years and introduction of the aforesaid Scheme, without giving sufficient time to make necessary preparations, might create confusion resulting into a mess and ultimately affecting the entire industry. Secondly, pending the introduction of 8 hours' regulated work, the crew is being paid 50 per cent compensation under the Agreement, Exhibit 85, dated 26th January 1981. Payment of this compensation shall cease to become payable from the date the new Scheme comes into force under the same Agreement. Thirdly, the nature of the Scheme is such that it cannot be given retrospective effect. In fact, no arguments were advanced by either of the parties on this issue. I, therefore, direct that the new Scheme shall come into force with effect from 4th December 1984.

ORDER

Award accordingly. Scheme in terms of paragraph 78. The Scheme shall come into force with effect from 4th December 1984. Parties to bear their own costs.

Bombay,

19th November 1984.

P. S. Malbankar

Arbitrator